



VARIETIES:

OR,
A SVRVEIGH OF
RARE AND EXCEL-
lent matters, necessary and
delectable for all sorts of persons.

Wherein the principall Heads of diverse Sciences
are illustrated, rare secrets of Naturall
things unfoulded, &c.

Digested into five Bookes, whose severall Chapters
with their Contents are to be seene in the Table after
the Epistle Dedicatory.

By
DAVID PERSON, of Logblands in Scotland, Gentleman.

Et quæ non prosunt singula, juncta juvant.

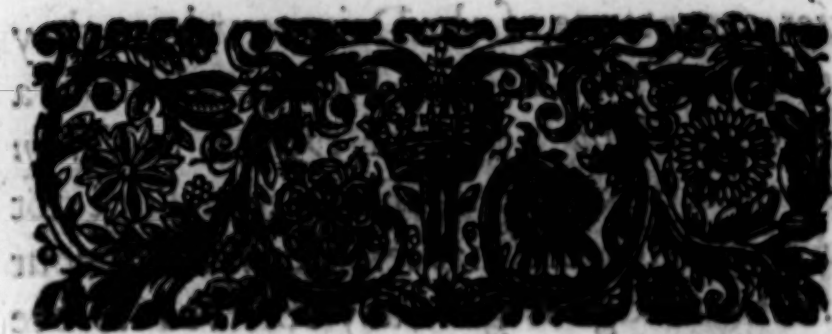


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Printed by Richard Badger, for Thomas Alchorn, and are to be
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THE
NEW
AND
REVISED
EDITION
OF
THE
HISTORY
OF
THE
CITY
OF
LONDON
AND
MIDDLESEX
FROM
THE
EARLIEST
TO
THE
PRESENT
TIMES
BY
J. G. CAMPBELL
ESQ.
OF
THE
BARR

IN TWO VOLUMES.
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TO
**THE MOST NOBLE
AND ILLVSTRIOVS,**

JAMES,
DUKE OF LENNOX, EARLE
Darnley and Marche, Baron of Se-
trington, Treboulton and Methuen, LORD Great
Chamberlane and Admirall of Scotland; Gentle-
man of his MAIESTIES Bedchamber; Knight
of the most Noble order of the GARTER,
and one of the most Honourable Privy Coun-
SELL, in both KINGDOMES.

Who sacrific'd unto their Gods of
old (most Noble and illustrious
Prince) were accustomed to ap-
propriate the matter of their offe-
rings, as neere as they could, to the nature and
better

The Epistle

better acceptance of the Deity to whom they immolated; as to *Mars* a Horse, to *Phæbus* a Cocke, to *Venus* a paire of Doves, to *Vulcan* fire, and the like; in this Dedication I doe not much deviate from that ceremony, for as your Gr. knowledge is generally observed to bee multifarious, and as the many successive most famous Vertues of your illustrious Predecessors doe most conspicuously survive in you, so no where more duely could this volume of Varieties be sacrificed then to your Gr. Larger merits, which have learned *Spaine* and other Countreys to speake you every way most generous and Noble; and which favourably shined upon by our most glorious Sun, makes all conclude you to prove in your maturer yeares both delightfull and profitable to King and Countrey. What my continued night-watches, studies, travells, and expences have beene in these recollections, I will think worthily bestowed if they be graciously accepted; and if they be thought worthy of your Graces Patronage, I have my wish: Meane gifts have beene favourably received by most worthy men; the PERSIAN KINGS disdain not their

Dedicatory.

their Peasants cups of water ; not *Donum* but *Dantis animus* is most acceptable ; and with what integrity of affection I offer this, shall appeare in what more worthy labour shall come from me hereafter ; which already is devoted to your G. most worthy Patronage ; as are my perpetual Orations to God for increase of all happinesse to be heaped on you ; which shall be still seconded with the most reall and best services that are in the possibility of

Your G. most humble and
most zealous devoted servant.

D. PERSON.

Dedicated.

their Testaments cups of water; not Darius but
Darius animus is most acceptable; and with
what integrity of affection I offer this, shall
appear in what more worthy labour shall
come from me hereafter; which already is de-
voted to your G. most worthy Patronage; as
are my perpetual Orations to God for increase
of all happiness to be heaped on you; which
shall be still seconded with the most real and
best services that are in the possibility of

Your G. most humble and
most real devoted servant

D. PERSON.



In
PERSONI

Polyantha.

SVbtiles, varias; jucundas res, simul uno
Congestas Libro, perlege lector, habes.
Hic Coelum, hic superos Manes, ac Tartara cernes,
Totus & ingentes quas capit Orbis opes.
Eximium miraris opus, longè tamen infra
Authoris vastum subsidet ingenium.

Da. Episc. Edinburgensis.



Ad **LECTOREM.**

SI variis gaudes, miranda, recondita quæris;
Si peregrina cupis, splendida, rara, bona;
Si leges, artes, & quæ Cœlestia spectant;
Si manes, mores, Physica, mentis opes;
Hoc opus eximium, ex cunctis præstantia pandet:
Perlege, vix aliud talia, tanta dabit.
Livor summa petens carpat; sed carpitur ipse
Irradiante libri lumine, ne invideat.

Io. Episco. Cathacensis.

In

*In praeclara Davidis Personi
gymnasmata.*

Finibus hic arctis ingens constringitur orbis,
Et stupet humanae Iuppiter artis opus.
Hunc olim fragili conclusit Græcia vitro,
Nunc brevis immenso cum Iove charta capit,
Vitreus interijt, durabit charteus orbis,
Ingenij donec cultor & artis erit.

A. Ionstonus, Medicus Regius.



*In Davidis Personi Lochlandij opera πολυποίμια seu
de multifaria rerum varietate.*

Quam varia rerum facies, quam gramine campi
Depicti vario, varij quam floribus horti,
Quam varium stellis Cælum, quam piscibus æquor,
Et picturatis volucrum sunt agmina pennis :
Tam varia & libri sunt argumenta perennis,
Quæ Personæ tibi famam peperere perennem.

*Io. Adamsonus Academia Edinburgensis
Rector Primarius.*



Of Persons Varieties.

THe Lawyer here may learne Divinity,
The Divine, Lawes, or faire Astrology ;
The Dammaret respectively to fight,
The Duellist to court a Mistresse right;

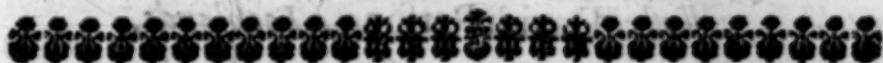
Such

Such who their name take from the Rosie-Crosse
May here by Time, learne to repaire their losse:
All learne may somewhat, if they be not fooles
Arts quicklier here are lesson'd, than in Schooles.

Distich, of the same.

This Booke a World is; here if errours be,
The like (nay worse) in the great world we see.

*William Drummond,
Of Hatborn-den.*



IN DAVIDIS PERSONI Lochlandij

πολυισορίαν.

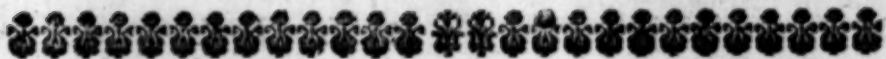
Ad Iuventutem Nobilem

παραινετικόν.

Q Vos plebi exemit splendor virtutis avita,
Et ditant veteri pradia structa manu;
Diana queis cura sequi, queis Castra diones;
Quasque voluptates lusus inanis habet,
Discite, Personus, quantum majora secutus,
Prima dedit Castris tempora Phæbe tuis.
Æmulus athereos imitari deinde labores,
Deseruit charum patria quicquid habet.
Quique Isim, Rhodanumq; citum, Rhenumq; Padumque,
Qui Lirim, & Tiberim, Dordoniumque bibunt,
Tam varios hominum mores scrutatus & urbes,
Sedulo Palladias accumulavit opes:
Has quoque nunc ultro promit, queis pectora vobis
Sit fas eximijs excoluisse bonis:
Quæque sibi multo constabant ante labore,
Dat vobis tenui mole paranda libri.

*Nabila quicquid habent, quicquid versatilis aether
 Eximium, aut vasto terra, vel unda sinu,
 Dadala natura secreta, Artisque stupenda
 Quas sophia, aut partes clara mathesis habet,
 Accipite, & gratapensetis mente labores,
 Discite & hinc studium Nobile velle sequi.*

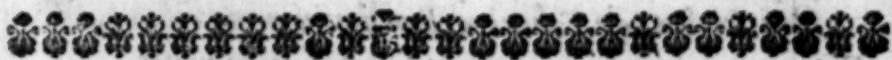
Tho. Crafordius.



*Generoso & omnigenâ cum ingenij tum morum Nobilitate
 illustri Davidi Perlono à Lochlands.*

A Stræus poterat vates post somnia lauri
 Gustatæ, lauri demeruisse decus.
 Mæonios postquam manes pater Ennius hausit,
 Romani eloquij coeperat esse pater.
 Pro monstro exemplum est; quando dij cuncta labore
 Vendunt, & duris gratia rebus inest;
 Tu varios hominum mores, urbesque fecutus,
 E vario florum germine mella refers.
 Priscaque componens his tempora, cuncta perennas,
 Cascaque temporibus das rediiva novis.
 Ast ne aliis tanti consent, compendia præstas;
 Et macrocosmum terra *Britanna* legit.

Ro. Fairlaus.



In DAVIDIS PERSONI Lochlandij,

πολυμαθήματα.

Nunc tibi, nunc quantum debet doctior orbis,
 Cui tuus unus erit *Bibliotheca* liber?

Gualt. Ballendinus.

Contents



A
TABLE OF THE
WHOLE BOOKE:

Wherein their severall Chapters,
with their Sections, and whole Con-
tents are orderly pointed forth.

The Table of the first Booke,
Wherein the matter and nature of the Hea-
ven, Sunne, Moone, Starres, Ayre, Sea,
and Earth is comprehended.

Sect. 1.

OF the matter whereof the Heavens are composed,
with the confutation of various opinions of Philo-
sophers concerning it. Pag. 4

Sect. 2.

Of the Starres, their substance and splendor, where
also of the Sunnes place in the Firmament. 8

(a)

Sect. 3.

The Contents.

Sect. 3.

Of the Moone, her light, substance, and power over all sublunary bodies. 10

Sect. 4.

Of the Element of Fire, whether it be an Element or not, and of its place. 12

Sect. 5.

A briefe Discourse of Meteors; of their causes, matter, and differences.

Sect. 6.

That the Earth and Waters make but one Globe, which must bee the Center of the World. Of the Seas saltnesse, deepnesse, flux, and reflux; why the Mediterranean and Indian Seas have none: Of Magellanes strait; what maketh so violent tyde there, seeing there is none in the Indian Sea from whence it floweth. Of the Southerne Sea, or Mare del Zur. 18

Sect. 7.

That the mountaines and valleyes dispersed over the earth, hindreth not the compleatnesse of its roundnes: Of burning mountaines and caves within the Earth. 25

Sect. 8.

Of time, whether it be the producer or consumer of things: Of the wisdome and sagacity of some Horses and

The Contents.

and Dogges : How the Adamant is mollified of the Needle in the Sea Compas ; and the reason of its turning alwayes to the North. 38

SECT. 9.

Of Fishes, if they may be said to breathe, seeing they lack pulmons: Of flying fishes, if such things may be, &c. which are the reasons of their possibility, are deduced, exemplified. 34

SECT. 10.

Of fishes, and their generation : How fowles are generated in the waters. If gold can be made potable ; and of the matter of precious stones. 40

SECT. 11.

Of the Earth, its circumference, thicknesse, and distance from the Sunne. 43



A TABLE OF THE SE-
COND BOOKE

OF
M E T E O R S.

Chapt. 1.

THe definition of Meteors, their matter, substance,
place, and cause. 46

Chapt. 2.

Where Meteors are composed of Clouds, where they
are fashioned, together with the solution of some que-
stions concerning the middle Region. 52

Chapt. 3.

Of falling Starres, Fleakes in the ayre, and other such
fery Meteors. 55

Chapt. 4.

Of Comets, their matter, forme, nature, and what way
they portend evil to come. 61

Chap. 5.

The Contents.

Chap. 5.

Of Raine, Dew, Hoare-frost, and their cause. 69

Chap. 6.

Of Snow, its cause, matter, and nature. 73

Chap. 7.

Of Windes, their true cause, matter, and nature, &c. 75

Chap. 8.

Of Earth-quakes, their cause and nature. 79

Chap. 9.

Of Thunder, Lightning, Haile, and certaine other secrets of Nature, with their solution. 82

Chap. 10.

Of Rivers, Fountains and Springs, their sources and causes. 88

Sec. 2.

(232)

A.



A TABLE OF THE
Third Booke.

OF
ARMIES
AND
BATTLES.

Sect. 1.

That greatest Armies have not alwayes carried away the victory; the reason of it; two examples of Semiramis, and Xerxes.

97

Sect. 2.

Examples of Greeke, Roman, and Brittilh Battels, where the fewer number have overcome the greater. 100

Sect. 3

Whether it bee requisite, that Princes hazard their Persons in field, or not; of the encouragement that their presence giveth to the Souldiers: When a King should venture to the field; and what Lieutenants are to be deputed

The Contents.

puted by him; all exemplified. 102

Sect. 4.

Of the Romans prudence and foresight in sending two Commanders abroad with their Armies; and why the Grecians conjoynd two in their Embassies: and of the danger of too strict Commissions. 105

Sect. 5.

Difference betweene Battels and Duels: that Generals may refuse challenges: with some passages betwixt Hannibal and Scipio in their warres. 108

Sect. 6.

That the exploits of our moderne Warriours have bin every way comparable to those of the Ancient; with some examples to that effect. 111

Sect. 7.

The difference betwixt the ancient manner of warfare, and the moderne: how farre the moderne engines of Warre exceede those of the ancient Greekes and Romans. 113

Sect. 8.

That the Ancients in their warres had greater opportunities to try their prowess in battell, than the modernes have. 115

Sect. 9.

The manner how the Greekes and Romans ordered their

The Contents:

their battels, both by sea and by land; the battels of Cannas and Trasimenes described. 116

Se^{ct}. 10.

A Maxime in Militarie discipline, inferned, to confirme Pompeys oversight at the battell of Pharsalia. 119

Se^{ct}. 11.

That the French, what within their owne Countrey and abroad, have fought more battels of late times, than any other Nation; and of their successe in them. 120

Se^{ct}. 12.

That Emulation amongst the Princes in France, rather than Religion, was the cause of the many Civill-warres there. 122



A TREATISE OF DVELS and COMBATS:

Se^{ct}. 1.

O*F Combats by Champions for cleering of Queenes honours: Combats betwixt Ladies; betwixt Churchmen; and betwixt Iudges: Combatants, rewarded by Kings their spectators, and S. Almachius kill'd for declaiming against Duels, &c.*

Se^{ct}. 2.

The Contents.

Sect. 2.

A recitall of two memorable duels, the one in France betwixt Monsieur de Creky, and Don Philippin; the other in Spaine betweene Pedro Torrello, and Ieronimo Anca, both of Arragon, in the presence of Charles the fifth. 129

Sect. 3.

How Combats may be thought permissible: the relation of a Combat betwixt Iarnacke and Chastigneray, in the presence of King Henry the second of France; citations of the Canon Law against Combats: Examples of a Combate where the innocent was killed: that the decision of all such questions whereupon Duels were permitted, ought to be left to God. 133

Sect. 4.

Severall objections for the tolleration of Duels and Combats confuted; Cajetans opinion of Duels, wherein also the lawfulnessse of Battels is allowed. 136

Sect. 5.

Cajetans reason for referring the event of Battels to Monomachie: where also is inserted the story of the Horatii and Curiatii. 139

Sect. 6.

That Kings and Generals of Armies, for saving of the greater blood-shed of their Souldiers, have fought single for victories: Examples of both; A quarrell and chal-
(b)

The Contents.

challenge betwixt the Emperour Charles the fifth, and Francis the first, King of France: how it tooke no effect. 141

Se^ct. 7.

A discourse of a combate, where thirteene French Knights fought against so many Italians; wherein the French were overcome, and some observations thereupon. 144

Se^ct. 8.

A memorable Polymashie betwixt two kindreds in the High-lands of Scotland, (betwixt whom there had beene a long and mortall enmity) for the totall extirpation of the one of them; fought before King Robert the second, at Perth in Scotland. 147

Se^ct. 9.

A combate appointed by two French Barons, the one of Gasconie, the other of Poictou, which was taken up of their own accord in the field: the end of this Title. 149

A

The Contents.

A TREATISE OF DEATH:

And of divers Orders and Ceremonies of Burials.

Sect. 1.

The remembrance of death requisite in all men: Ceremonies for the remembrance of it; some doouments against the feare of it: what death Iulius Cæsar wished: of Autocides: of selfe-murtherers, &c. 153

Sect. 2.

That Christians ought not to feare death, as the Ethnicks did. All things, save man, keepe their constant course. The uncertainty of mans life. 156

Sect. 3.

In what reverence the interring of the dead was amongst the Ancients: Of Alexander: Of Sylla: How the people of Vraba did use their dead: Customes of Friesland, Lapland, Greece, and other places, concerning Burials. 158

Sect. 4.

*Other severall Customes of interring the dead amongst
(b 2) Egypt*

The Contents.


Egyptians, Romans, and Indians; that the manner of Christians interments are preferable to all other.

162

Sect. 5.

That the Church of Rome reapeth great commodity by their funerall ceremonies, as by their Bells, Cymbals, Torches, Processions of order, and the rest: silent obsequies condemned: A story of a woman whose Ghost haunted her Husband and family after death; and the cause thereof.

164



A T R E A T I S E O F Mentall reservation.

Sect. 1.

THE Decree of the Councell of Constance, That no faith is to be kept with Hereticks and enemies, is agitated: the commendation of peace: that a necessary and just warre is to be preferred to it: a story of Augustus Cæsar.

167

Sect. 2.

Montall reservation defined: All fraudulencie in making peace or taking truce, condemned; for which purpose are instanced examples of Grecians, Romans, and others.

170

Sect. 3.

The Contents.

Sect. 3.

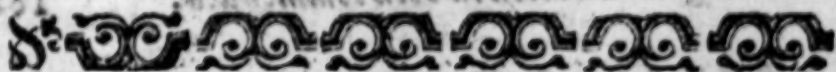
The integrity of the Ancients commended in making peace, and their other pactions. A story of P. Corn. Scipio to that purpose. Græca fides, what, and wherefore used: Of the dishonest dealing of Pope Alexander, and his Nephew Cæsar Borgia, &c. 173

Sect. 4.

The difference betwixt the ancient and the moderne Romans in uprightnesse of dealing, instanced by a story of Pompey the Great, and Augustus Cæsar. 175

Sect. 5.

Of the breach of faith to enemies: treacherie at a siege of Capua: treacherie and cruelty committed by the Spaniards at a siege of Genoa: the strictnesse of Generalls over common Souldiers exemplified, &c. 176



A

TREATISE OF Laughing and Mourning.

Sect. 1.

THe benefits and content that all men reape by the workes and labours of Writers and Travellers. 181

(b 3) !

Sect. 2.

The Contents.

Sect. 2.

Of sudden deaths that have happened unto men amidst their feasting and other jollities, exemplified with stories both sacred and prophane. 182

Sect. 3.

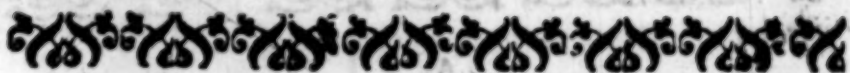
Stories of severall worthy and brave men, that upon occasions have shed teares: of the sensible griefe of some Horses, Dogges, and Hawkes upon the losse of their Masters. 184

Sect. 4.

Risus Sardonicus, what and how to be taken: Of the holy teare kept in the Abby Church at Vandelsme in France. 187

Sect. 5.

Of weeping for the dead, how to be moderated. The matter of teares: of laughing and weeping for one and the same thing: moderation in both commended. 188



A TABLE OF THE fourth Booke.

Of Curiosities, &c.

Sect. 1.

THe difference betwixt factions and seditions: a rebellion of the common people of Rome against the Senate and

The Contents.

and Patricians. Emulation a principall producer of great exploits; the harme that followeth Curioſitie, and that Church-men are not exempt from it. 177

Sect. 2.

How Curioſities have wonderfully diſturbed the peace of the Church; a recitall of ſome impertinent curioſities in Religion; with ſome alſo of Subtilis Scotus, and Thomas Aquinas, &c. 179

Sect. 3.

A continuation of ſome other Theologicall and Metaphyſicall ſubtilities and curioſities. 181

Sect. 4.

Of Curioſities in Logick; the relation betwixt the Creator and the creature: to what Heaven the Prophets Enoch and Elias were wrapt: what place is ſaid to be Abrahams Boſome. 182

Sect. 5.

The curioſitie of the Millenarii; with many other curioſities more frivolous than neceſſary. 184

Sect. 6.

That the Planets and other celeftiall bodies have not that power over the natures of men and women, that Aſtrolagers aſcribe unto them: that the ſtarres are innumerable: Of the number and greatneſſe of ſome in Via lactea: where the center of the earth is; its circumference

The Contents:

rence. Of *Ætna*, *Hecla*, *Saint Patricks hole*, and the like. 186

Sect. 7.

To search out the secrets of Nature allowable, if men be not too curious in them; *Eudoxus* wish; *Plinius* killed on the Mountaine of *Vesuvius*: *Aristotle* drowned in *Euripus*: Too much curiosity is a plague sent down from heaven on men; the Poet *Simonides* acknowledged his ignorance of God; how the heathenish Gods were portrayed. 190

Sect. 8.

Too great curiosities condemned; and a moderation to be used in them prescribed. 193

Sect. 9.

How God disappointeth the expectations of the most curious; and that the most subtil spirits runne into greater errors than the meaner doe. 194

Sect. 10.

An inducement to the studie and search of the secrets of Nature: Of the Needle in the Sea compasse: Of the inundations of the River of *Nilus*, and from whence it hath its source and beginning: Of the severall dispositions of men: Why continuall burning Hills and Mountaines doe not diminish, &c. 190

Sect. 11.

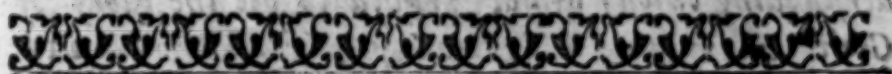
Of *Christopher Columbus* his practickall curiosity in his discovery of the new World, or *America*. 199

Sect. 12.

The Contents.

Sect. 12.

The conclusion of this Treatise of Curiosity, containing a singular curiosity of Livia, Tiberius Cæsars wife. 203



Of divine Philosophy, and Mans Felicity.

Sect. 1.

THe Sunne and Moone in the Heavens compared to the Vnderstanding and Will of Man. Aristotles definition of happinesse: The distinction in Vnderstanding and Will; and wherein ancient Philosophers placed their chiefe felicity. 205

Sect. 2.

That our felicity consisteth in the actions of our Will, is confuted: Aristotles opinion hereupon. A theologicall solution on it, seconded with a Philosophicall; and an agreement of both to solve the difference. 207

Sect. 3.

Which of the three faculties of the soule, Vnderstanding, Memorie, and Will, is the most excellent. 218

(C)

Sect. 4.

The Contents.

Sect. 4.

Liberty and compulsion defined; that the will is prompted by the understanding, and that the adequate object of it proceedeth from thence: At what the will and understanding chiefly ayme, proved to bee the glory of God.

219

Sect. 5.

That all Philosophicall precepts have come short to demonstrate true felicity; Philosophicall distinctions to know what is good of it selfe in Sciences; yet all weake to illustrate wherein mans true happinesse consisted; which is philosophically agitated.

221

Sect. 6.

That wealth and honour cannot be esteemed to bee our supream good or felicity, and the reason therefore; Philosophers confuted by their difference of opinions: Opinions of severall Sects of Philosophers concerning felicity, instanced to that effect.

223

Sect. 7.

The later Philosophers have ayimed neerer the definition of true felicity, than the more ancient; and their opinions specified: the finall and true scope of mans felicity, is illustrated with an exhortatory conclusion to all men, for endeavouring to attaine unto it.

THE

The Contents.



The Consonancie and Agreement of the ancient Philosophers, with our Christian Professours.

Sect. 1.

THe difference betwixt the Physiologer and Physician, compared to that betwixt the Metaphysician and Divine. Some of Plato's opinions not farre dissonant from our Christian: The multiplicity of Heathenish gods: that Plato came neerer the definition of the Trinity. 229

Sect. 2.

Of Gods creating and conserving of all things in an orderly order; Plato's reasons that the world hath a life. Aristotles opinion of God; he is praised, and at his dying, preferred before many doubtfull Christians. 231

Sect. 3.

Plato's opinion concerning the creation of the world; seconded by Socrates and Antisthenes: Opinions of Plato, Aristotle, and other Philosophers, confirming God onely to be the Creator of all things. 234

Sect. 4.

Opinions of Plato, Aristotle and some Hebrewes,
(c2) concer-

The Contents.

concerning the worlds eternity: the consonancie of opinions betwixt some ancient Philosophers and Mosts about the worlds creation. 236

Sect. 5.

Ancient Philosophers attributed the framing and continuance of all sublunary Creatures (as we Christians doe unto God; with a recapitulation of severall consonancies betwixt us and them. 238

Sect. 6.

Severall other opinions wherein the ancient Heathnicks agreed with us Christians, confirmed by the testimonies of their Poets. 240

Sect. 7.

Of good and bad spirits; and wherein the opinions of the Heathnicks agree with ours concerning good spirits. 242

Sect. 8.

How neere the Ancients agree with us concerning bad spirits; and in what orders they were divided of old. 243

The Contents.

OF
S L E E P E
AND
D R E A M E S.

Sect. 1.

That nothing can subsist without sleepe or rest; exemplified in the death of Perseus King of Macedon: The primary and secondary causes of sleepe: that a sound conscience is a great motive to sound sleepe, proved in the example of Thirois and his two Sonnes. 245

Sect. 2.

Examples of Kings and great Commanders, that upon the thoughtfulness of some great exploit or encounter, have beene extraordinarily surprized with unusuall sleepe; and the reasons thereof agitated. 248

Sect. 3.

Alexander the great his sound sleeping, when he should have encountred Darius in battell, here excused. Cato's sleeping before his death, whereupon is inferred a discourse against selfe-murther. 249

Sect. 4.

Of Dreames both Naturall, Accidentall, Divine, and
(c 3) Dia.

The Contents.

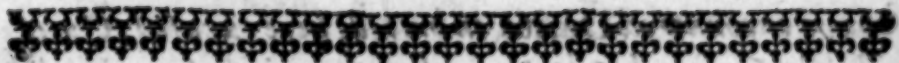
Diabolicall : Apollodorus dreame ; Abrahams, Iosephs, Pharaohs, Nebuchadnezzars, &c. 251

Sect. 5.

The Emperour Severus his dreame of Pērtinax, which he caused to be molded in Brasse : An admirable dreame of the Emperour Henry the fifth ; Cicero's of Octavianus. That beasts dreame, but hard labouring men seldome, and the reason thereof, &c. 254



A



The Contents.



A Table of the fifth Booke,
Wherein the READER must conceive,
that the Page begins anew, and
doth not follow the former computation.

OF THE NUMBERS THREE and SEVEN.

Sect. 1.

Treating briefly of Numbers in generall.

1

Sect. 2.

Containing variety of memorable things comprehended within the Number of Three, as of Heaven, and Hell, and of Poeticall fictions, and some observations amongst the Romans.

2

Sect. 3.

Containing some Theologicall and Morall precepts and observations, redacted under the number of three.

5

Sect. 4.

The Contents:

Se&. 4.

Of Politicke Government: Of living Creatures; and of duties belonging to men of severall professions, as Physicians, Iudges, and Lawyers, &c. with some Physicall observations, all Tripartite.

7

Se&. 5.

Memorable observations comprehended within the Number of Seven, as of the age of the World, and mans generation.

9

Se&. 6.

How the seven Planets are sayd to rule severally over the seven ages in the life of man.

11

Se&. 7.

The opinions of some Fathers of the Church and some Philosophers concerning the number of Seven, what attributes they gave, with some of Hypocrates observations thereon.

13

Se&. 8.

Of the Seven Wonders of the world.

14

Se&. 9.

A continuation of observations on the number of seven, taken out of holy Scripture.

15

Se&. 10.

Of the seven great Potentates of the world; of criticall dayes

The Contents.

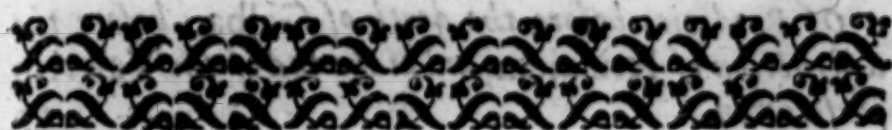
dayes, and climaeterick yeeres, with other observations.

16

Sect. II.

Of the Worlds Continuance and Ending.

19



A T R E A T I S E

OF
Prodigies and Miracles.

Sect. I.

The definition of Miracles, with their distinction; In what time they were requisite, in what not, &c.

21

Sect. 2.

Of Prodigies, and in what veneration they were amongst the ancient Romans.

23

Sect. 3.

A continuation of Prodigies which happened in the time of the second Punick Warre; with many others that were seene under the times of severall Consuls of Rome.

26

Sect. 4.

*Of Prodigies that happened during the civill warres
(d) betwixt*

The Contents.

betwixt Marius and Sylla; of some in Julius Cæsars time; as, at his passing the River of Rubicone, the Pharsalian warres, and at his death, &c. 28

Sect. 5.

Of Prodigies before the death of Galba, before the destruction of Ierusalem, and at the end of the Valerian persecution. 29

Sect. 6.

A continuation of other Prodigies, with a conclusion of this Treatise. 31



SALAMANDRA:

OR

The Philosophers Stone.

Sect. 1.

THE History of the life and death of Antonio Bragadino. 33

Sect. 2.

The reason that moved the Author to handle this matter: the different blessings betwixt the Indians and Christians: the definition of the Philosophicall Stone, the generall way and matter whercof it is made. 35

Sect. 3.

The Contents.

Sect. 3.

The Authors proposition: the reason of its denomination; opinion of most approved Authors touching it; and of the possibility and factibility of it.

37

Sect. 4.

That the making of the Philosophers Stone is lesse expensive and laborious than many things we both use and weare; why the makers of it enrich not themselves and others.

39

Sect. 5.

A generall relation of the matters and materials requisite to this Worke; and in what time it may bee perfected.

41

Sect. 6.

Of the five degrees whereby the Worke is perfected, and first how to bring it to Solution.

43

Sect. 7.

How from Solution to make Coagulation.

44

Sect. 8.

How from Coagulation to produce Fermentation.

45

Sect. 9.

The way to bring the Worke to Fixation.

46

(d 2)

Sect. 10.

The Contents.

Sect. 10.

From all the former, how to perfectionate Multiplication.

47.

Sect. 11.

A short recitall of some other wayes of perfecting it, used by some Filii artis, and why it is called Salamandra.

47.



OF THE WORLD.

Sect. 1.

OF the various distractions of Philosophers in their opinions concerning their Gods; and upon how ill grounds they were settled.

94

Sect. 2.

Of the severall sorts of Gods amongst the Heathen; that they imagined them to be authors of evils; that they were but mortall men: And some opinions of Philosophers concerning the nature, being, and power of their Gods.

51

Sect. 3.

Pythagoras opinion concerning the transmigration of soules

The Contents.

soules rejected; of the coupling of the soule and body together; with severall opinions of the ancient learned men concerning the substance of the soule. 54

Sect. 4.

The former Heathnick opinions confuted by our Christian Beliefe; that they differed concerning the time of the soules continuance, and place of its abode; how they thought soules after the separation from the body to bee rewarded for good or ill, &c. 56

Sect. 5.

Philosophicall tenents of plurality of Words confuted; of Gods Creation of male and femall of all living Creatures. 58

Sect. 6.

Severall opinions of severall Philosophers concerning the Worlds Eternity; their naturall reasons for approving of it; and what the Egyptians thought concerning the antiquity of the World. 60

Sect. 8.

The most approved opinion of all Philosophers concerning the Worlds beginning and matter: the infallible truth of it; and a checke of Augustines against over-curious inquisitors after those and the like mysteries. 64

Sect. 9.

*How Philosophers differ from Christians in the wayes
(d 3), whereby*

The Contents:

whereby God is knowne; the parts whereof the world is composed; the division of the celestiaall spheares, wherein severall varieties may be observed. 65

Sect. 10.

The order of the Elements, with some observations of the Ayre and Water. 70

Sect. 11.

Of the Earth, that it is the lowest of all the Elements; its division, first into three, then into foure parts; and some different opinions concerning them reconciled. 71

Sect. 12.

Of the different professions of Religion in the severall parts of the world: what Countries and Ilands are contained within Europe, and what within Asia. 73

Sect. 13.

With what Religions and Sects all the Easterne and Northerne Countries are possessed, and in what places Christianity is most professed, &c. 75

Sect. 14.

America and the New found-lands briefly described; and some opinions about what time of the yeare the world had its beginning. 77

Sect. 15.

*Wherein is to bee seene some things concerning the
time*

The Contents.

time when it is thought to take an end.

79

Sect. 16.

Copernicus his opinion of the Earths moving, confuted: Archimedes opinion of the world: an Induction to the following Section.

81

Sect. 17.

The division of the starrie firmament, into twelve houres; of the Power and efficacie that is attributed to the Triplicities of them over every Country: and the maintainers of these opinions confuted: the divers dispositions of people of severall nations, how attributed to the naturall disposition of the Planets: An observation of Gods Providence.

83

Sect. 18.

The causes of the Changes of severall things as of men, Countries; plots of ground, &c. and that these proceede not from triplicities as Astrologers would have it.

87

Sect. 19.

How ancient Writers have compared Man and all his parts to the World and all its parts; wherein is recounted the different dispositions of men of different Countries; and to what Countries the faculties of the soule are attributed.

88

A

The Contents.



A generall Introduction and incitement to the study of the METAPHYSICKS:

Sect. 1.

OF the severall titles and appellations that have beene given by Heathnick and Christian Philosophers to Metaphysick; the reasons wherefore every of those names were attributed unto it; and finally whereof it principally treateth.

91

Sect. 2.

The Reasons why Aristotle added Metaphysick to the other parts of Philosophie; and how it is distinguished from the other Sciences.

93

Sect. 3.

Three Reasons conducing to the praise of Metaphysick, inducing all men to the study of it; and setting downe some principall ends and uses thereof.

95

Sect. 4.

The excellencie and dignity of the knowledge of Metaphysick; that onely free and sublime mindes, not distracted with

The Contents.

with worldly cares are fit for this studie; and the Reasons wherefore. 96

Sect. 5.

For three respects the Metaphysick is called the most excellent Science, and the most necessary to be understood by Christians. 99

Sect. 6.

The first respect, for the universality. 101

SECT. 7.

The second Respect, for the dignity. That the consideration of the soule of man belangeth to the Metaphysicks, with severall Reasons for the prooof thereof. 102

Sect. 8.

The third Respect, for the Usefulness. Of the great use of Metaphysick is towards the furthering of all Divines, in Controversies, and other things: A Conclusion. 104

=====

A Table of the principall Authors perused in the Contexture of this booke.

A	<i>Aristoteles.</i>	<i>Ausonius.</i>
<i>Albrosius.</i>	<i>Aristophanes.</i>	<i>Ætius.</i>
<i>Augustinus.</i>	<i>Apuleius.</i>	<i>Anriliacus Albicynius.</i>
<i>Ammianus Mar-</i>	<i>Albertus Magnus.</i>	B
<i>collinus.</i>	<i>Aulus Gellius.</i>	<i>Bodinns.</i>
<i>Alexander ab A-</i>	<i>Albertus Colonien-</i>	<i>Buchananus.</i>
<i>lexandre.</i>	<i>sis.</i>	<i>Boetius.</i>

Boetius Hist.

Bernardus.

C

Chrysostomus.

Cardanus.

Caietanus.

Cicero.

Cuspinianus.

Cornelius Tacitus.

Cujacius.

Copernicus Clavius.

Chopinus.

Cominens.

Catullus.

Conimbricenses.

Clandianus.

D

Pionisus Arcopagita

Dion.

E

Ennius.

Elias Vineti.

F.

Fernelius.

Froissard.

Fonseca.

G.

Gnicciardin.

Galen.

Gonsales Oviedes.

H

Hieronimus.

Horacius.

Haly Arab.

Homerus.

Heredotus.

Herodianus.

Hypocrates.

Herpinus.

I.

Irenaus.

Ins Civile & Canon.

Invenalis.

Iustinus Tragus.

L.

Lactantius.

Lucanus.

Lucretius.

M.

Montaigne.

P. Martyr Verini.

P. Martyr Desad.

Mercator.

Martialis.

P. Mathew Paris.

Adagius.

Macrobius.

N.

Natalis Comes.

O.

Origines.

Ortelius.

Onuphrius.

Ovidius.

P.

Plato.

Plinius.

Plutarchus.

Polybrus.

Planus.

Philo Hebraus.

Properius.

Ptolomaeus.

Picinus Hieroglyph.

Q.

Quintus Curtius.

Quintilianns.

R.

Ripheus.

Rodiginus.

Ruvius.

S.

Seneca Ph.

Strabo.

Sophocles.

Seneca Trag.

Suetonius.

Serres.

Scaliger.

Snarez.

Sabellicus.

Sacraboskus.

T

Tertullianus.

Tibullus.

Titus Livius.

Terentius.

V.

Valerius Maximus.

Vitruvius.

Virgilius.

Velleius Paterculus.

Villamont.

Ulpranus.

Volaterranus.

X.

Xenophon.

TO



TO
THE READERS OF
these Varieties.

Courteous Reader,



AS best deserving Precedency I beginne at you, whose short Character may be this : One who is accomplished with such endowments as make an excellent man, the meanest whereof would blow up some men with self-conceit, selfe-love, selfe-praise, and an universal disparaging of others abilities; He hath learned that God distributeth not his gifts to all men, and makes good use of it; for he derideth, despraiseth, nor condemneth any man, nor his workes nor actions, as being conscious that God might have endued him with that mans spirits, to have produced no more admirable thing : He reades many bookes; though he may serve for a library himselfe, yet his censure of these bookes he measureth by the Authors abilitie, good intention, and the profits it may yeeld to meaner Capacities than his, but so discreetly, that his words favour more of Commendation than reproach : In

The Epistle

a word, he is one that escapeth not the Venemous bites of the ignorant Rable, but hath Antidotes against it, Yea hee is one, who when he considers my Travells, studies, expences, and painefull observations, and withall that my tenneyeares travell abroad hath taught me almost to forget my Native Language, and that the importunitie of friends made me put this to the view of the world which I thought ever to suppress, as being for the most part composed in the Countrey, farre from the conversation of the learned which is the cheefe helpe to the perfectioning of such workes; he is one I say, that will then give such a Candide censure of me and it, that the most rigide Critick will be stricke dumbe from Calummie; But before I leave him, let him give me leave to tell him ingenuously, that to him onely I present this worke, and promise that ere long he shall be gratified with a present farre more worthy of his excellently well qualified goodnesse. As opposite in all the former expressions to the courteous, I addresse my selfe to the carping Reader; He is not a naked but a ragged pretender to all wit and learning and hath a smattering of many some things: He is so conceited of himselfe that he is not content to discommend some of the parts and members of another mans creature, as not elegant enough or uniformly composed, but will lay most vile and infamous asperations on the whole body of it whilst in his owne conscience he findes his to be but prodigious monsters, if ever he had a sparke of *Promethean* fire in him to give a short life to any thing: When hee meetes with any ignorant men, then the Peacockes taile of ostentation spreads abroad and they silly creatures admire the Varietie of its colours even to the disparagement of more perfit and more sweetly singing Birds: but presently that falls, and the most ignorant then perceive the harshnesse of his note: He feedes all the world with large promises of some rare worke to proceed from him ere long, and thereby hee so long feedes and drinkes; till both he and it and his name doe

To the Reader

doe all die : and none to sing his *requiem* ; Now being loath to resuscitate so peccant a humour, I leave him too without an Epitaph in hope never to heare of his succession or his ghost wandring after this.

For the ignorant Reader, hee hath such a qualitie, to make himselfe appeare wittie, that he will commend every thing that he doth not understand and so I am sure of his approbation; but *Laudari ab indocto vituperari est*. Wherefore I leave him to admire and wish for better proficiencie. Lastly, to the view of all in generall; I expose this booke into the world; upon this confidence that if the most discrete and Iudicious give it but that auspicious approbation, that many worthy and learned gave it before it suffered the Presse; for the rest my care is taken; yet shall I to all (but in a different manner) ever be

A Well-wisher.

D. P.

(e3)

THE



The Authors Friend to the Booke.

Goe ventrous booke, thy selfe expose
To learned men, and none but those;
For this carping age of ours
Snuffes at all but choycest flowers,
Cul'd from out the curious knots
Of quaint writers garden plots;
These they smell at, these they savor,
Yet not free from feare, nor favour:
But if thou wert smel'd a right
By a nose not stult with spight,
Thou to all that learning love
Might'st a fragrant nosegay prove,
So content thee, till due time,
Blazethy worth throughout this Clime.



To the curious Reader.

THough in the former leaves you may descry
The Sum of all this Book, drawne to your eye,
In succinct perspective; yet if you trace
A little farther, and survey each place
As it in all dimensions, colours, Art,
Is measured out; O ! then it would impart,
That true content that every man enjoys
Betwixt things Reall, and fine painted toyes :
Most Sciences Epitomized heere
Are as the Noonedayes light set down most cleere;
With other rarities, to yeeld delight,
If thou but daigne to reade the same aright.
How er'e thou think, or speake, my comfort's this,
They'le speak themselves wel, though thou speak amisse.

ERRATA.

What Errors have Escapt in this booke, either in the Quotations, Omission of Words transplacing, or the like, let them be imputed to the Transcriber, And shall be mended Godwilling.



Percurri librum hunc, cui inscriptio est *Varie-*
ties, &c. nihilque in eo contra Catholicam fidem,
aut bonos mores inveni.

THOMAS WEEKES R. P. D.

Ep^o. Lond. à Sacris.





The first Booke of Varieties.

CONTAINING,

**A DISCOURSE
AND DISCOVERIE OF**
some of the Rarest and most Profit-
table secrets of naturall things, whether
in Heaven, Aire, Sea, or Earth.

*As of { The Heavens, Sunne, Moone, and Starres, their
Matter, Nature, and Effects, &c.
The Ayres Regions, and their effects, &c.
The Seas saltnesse, deepenesse, and motion.
The Earths circumference, and distance from the
Heavens : by way of Question and Answer.*

The Preface to the following questions ; wherein is
*set downe the Praise, Effects, Uses, Ends and Parts
of Philosophy.*

SE E I N G Philosophy (which is the love
of Wisdome, and of the knowledge of
divine and humane things) by auncient
Philosophers and Wise men in their se-
verall ages, was accounted not an inven-
tion of mortall men, but a precious Iewell, and an in-
estimable propine, sent downe from the Gods above ;
thereby

*The praise of
Philosophy.*

Lib. I. Of the secrets of NATURE.

Effects of Philosophy.

Thereby, in a manner, to make men partakers of their divine knowledge : which made the Poets feigne *Minerva* (the patronesse and president of wisdom) to have issued from *Jupiter's* braine, and the Muses (nurses of learning) to be his daughters) it is no wonder that *Plato* in his *Timæo*, and *M. T. Cicero*, do so highly extoll the knowledge of it, giving to it the Attributes of the Searcher of vertue, the Expeller, and chasser away of vice, the Director and guider of our lives, the Builder of Cities, Assembler of men, (for before that knowledge, they strayed through Wildernesses like brut Beasts) the Inventer of Lawes, Orderer of manners, Promover of discipline, Instructor of morall good living, and the meane to attaine a peaceable and quiet death. Finally, seeing by it we arrive at the perfect understanding (at least, so farre as humane wit can reach) of all the secrets that Mother Nature containeth within her imbraces, whether in the Heavens, Aire, Seas, Earth, and of all things comprehended within or upon them.

Uses and ends of Philosophy.

What time can we better spend here on Earth, than that which we imploy in the search of her most delightfull instructions : for thereby every sort of men, whether Moralist or Christian, may have his knowledge bettered ; which made Saint *Paul*, and before him *Aristotle* confesse, that by the knowledge of these visible things we might be brought to the knowledg, admiration, and adoration of our great and powerfull GOD, the Maker of Nature ; for the knowledge of naturall things, and of their causes, leadeth us (as it were) by the hand to the search of their Author and Maker. This the Poet points at, when he sang,

Præsentemque

Præsentemq. refert qualibet herba Deum.

There is nothing so meane in Nature, which doth not represent unto us the Image and Power of the Maker; and argue, that none but He could have been their Former. And it is this sort of Knowledge, which properly we call Philosophy, or Physick, which in this Treatise I intend most to handle; and by which, as by one of the principall parts of Philosophy, the reader may have an insight in the Cabals and secrets of Nature.

The Philosophers and Learned sort reserved, in a manner, to themselves the other parts of Philosophy, as not being so absolutely necessary for all to understand, except a very few, and these pregnant wits only: For Logicke, the first and lowest of all, is *Of Logick.* but as an Instrument necessary for the other parts, wherewith to serve themselves, by subministring grounds and wayes of reasoning, thereby to inforce conclusions of the precedents, which they propounded.

Metaphysicks againe, contrary to the Physicks, *Of Metaphy-
sicks.* medleth with things transcendent and supernaturall, wherto every reader is not called, and wherof al alike are not capable; neither are the Mathematicks befit- *Of Mathema-
ticks.* ting every spirit, giving hard essayes even to the most pregnant wits, all not being alike capable of the dimensions and mensurations of bodily substances; no more than all are for the Military precepts and Architecture, Printing, Navigation, Structure of Machins, and the like; which are things consisting in Mechanick and Reall doings: neither are all alike able for Musick, Arithmetick, Astronomy, Geometry, &c.

whereas all men as fellow-inhabitants of one World, and the workmanship of one Hand, by an inbred propensenes, with a willing desire are carried to the search of things meerely Naturall: though, as in a Citie, Common-wealth, or Principality all in-dwellers are not alike, neither in honour, dignity, nor charge.

The Authors
Apologie.

If in the discovery of these Mysteries and secrets of Nature, I answer not the vast expectation of the overcurious; the more modest and discreet Reader will rest satisfied, that I inferre the most approved Reasons of the more Ancient and Moderne Philosophers, and such men as have most Copiously treated of them; thereby to ease thee and all men of the like paines and turmoile, that I have had in the search of these secrets; which if they bring thee that content & satisfaction that I desire and intended for thee; I am assured of a favourable applause, and have there-ward I expected.



Section 1.

Of the matter whereof the Heavens are composed with the confutation of various opinions of Philosophers concerning it.

ALthough the world, and all comprehended within its imbraces, is the proper subject of Physicke, and that Physiologie is nothing else but a Discourse of Nature, as the Greek Etymologie sheweth, and so were a fitting discourse for this place; yet because the questions which concern a Christian to know, against the Philosophicall conceits; (Of the Worlds eternity, its

Questions
concerning the
World.

his pre-existent matter, that it had a beginning, but shall never have an end: if there be more worlds than one? If the world be a living Creature, in respect of the Heavens perennall and incessant rotation, and the Ayres continuall revolution; the Seas perpetuall ebbing and flowing; the Earths bringing forth, or conceiving fruit alternatively, &c. Because, I say, these questions of the World, together with these, if there was a World before this which is now? or, if there shall be one after this is consummated? if there be any apart by this?) are handled in the Chapter of the World in this same Booke; I passe them for the present, and betake me to the more particular questions more necessary to be knowne, and lesse irreligious to be propounded.

And because the Heavens, of all the parts of the World are most conspicuous, as that wheretoever we bend our eyes, being the most glorious Creature of all the Creators workes; at it I will begin: but as I said, I would alwayes have the Reader to understand that I propound these questions not so absolutely of mine owne braine to solve them, as to give him a view of the variety of opinions; yea, of the most learned in these high and sublime questions, whereat we may all conjecturally give our opinions, but not definitively, while it please the great Maker to bring us thither, where we may see Him and them more cleerely.

The way how these questions are propounded.

Quest. First then, I aske of what matter are the heavens composed?

Answ. Diverse have beene the opinions of Philosophers upon this subject: For *Averroes* in his first booke of the heavens, and there in Text 7. and

Diverse opinions of the heavens substance.

tenth, holds it to bee so simple a body that it is free from all materiall substance; which opinion of his, by this may be refelled, that with *Aristotle* in the eight booke of his *Metaph. chap. 2.* and in his first booke *De cælo*, and Text 92. What ever things falles under the compasse of our senses, these same must bee materially substantiall: But the heavens are such, and therefore they must be materiall. Besides that all movable Essences consist of matter and forme, as *Aristotle* in his second booke of *Phy sicke chap. 1.* holdeth. But so it is that the heavens are movable, therefore they cannot be free of matter.

Quest. Seeing then it is evinced by argument, and concluding reasons, that the heavens doe consist of matter; I aske now, what kinde of matter are they compounded of?

What is the true matter & substance of the firmament.

Answ. The Philosophick Schooles in this point are different: Some of them maintaining, a like matter to be common with them, and the sublunarie bodies, that is, that they were composed of the foure elements, of which all things here below doe exist. Neither lacked there some Sects that gave forth for truth, that the heavens were of a fierie and burning nature, which opinion *Aristotle* confureth by many reasons in his first Book, *De cælo chap. 3.* establishing his owne, which have beene held for truth not only by his Sectaries the Peripatericks, then; but ever since have beene approved; which is, that the matter of the heavens being distinct in nature, from that of the foure elements of which all other sublunariethings are framed, must bee composed of a quintessence; which opinion of his he thus maintaineth against the
Platonists

Platonists and all others who maintained that it was framed of the most pure and mundified part of the foure elements: for (saith hee) All simple motion which we finde in nature, must belong unto some simple body; But so it is that we finde a circular motion in nature which no wayes appertaineth unto any of the elements, in regard that in direct line, they either fall downward, as the waters and earth; or else they ascend upward, as the ayre, and fire: And it is certaine that one simple body, cannot have more proper and naturall motions than one. Wherefore it followeth of necessitie, that seeing none of the elements have this circular motion as is before verified, therefore there must be a distinct simple body from them, to which this motion must appertain, and that must be the heaven.

As for those who enforce identitie of matter in kind, betwixt the heavens and these elementarie things below, and consequently would involve them under corruption, which is peculiar to all other things; their warrant is of no validitie: for although they take upon them, to demonstrate, by their late *Astronomi-
call* observations in the *Aetherian* region, new prodigies not observed nor remarkable heretofore, which both *Ruvius* and the *Conimbricenses* give forth to proceed from a corruption, and defect of the first cause from whence they flow; They mistake: in so farre as they are rather extraordinary workes of the great maker, threatening mortalls by their frownings, then other wayes Symptomes of the Celestiall Par-
oxysmes and corruption. Neither must you understand that I doe so adhere unto the heavens incorruptibility.

tibility, that I thinke it free from all change, but contrarily rest assured that at the last conflagration, it shall suffer a change and novation, but no dissolution, as the low elementarie world.

Quest. You conclude then that the heavens are of a fift substance, not alembecked out of the foure elements, but an element by it selfe, having it's owne motion severall from the others which is a circular one?

Ans. Yea, truly I doe.

The earth rolled about with the heavens.

Quest. But now seeing all circular motion is such, that it hath some immoveable thing in the middle of it, whereabout it whirleth ever, as we see in a Coach Wheele and the axeltree : What is this immovable thing, whereabout the heavens circular rotation, and perpetuall motion is?

Ans. The Globe of the earth, which (whatsoever fond conceit *Copernicus* had concerning the motion of it) yet remaineth firme and immovable.

And the heaven doth rolle still about this earth, and hath still as much below it as we see round about and above it.



SECT. 2.

Of the Starres, their substance and splendor, where also of the Sunnes place in the firmament.

Quest. But I passe from the motion of the heavens, and their matter, which you hold to be a quintessence, and so a thing distinct from the foure elements.

ments. Now I crave to understand, what is the matter of these twinckling Starres which we see glancing in the face and front of this heaven?

Answ. Of that same matter whereof the heavens are, because in simple and not composed bodies their parts doe communicate with that same nature, and matter whereof the whole is; so that the heaven being a most simple body, and the Starres, her parts or a part of it, no wonder that they communicate both of one essence; and of this opinion is the Philosopher himsele in his second booke *De celo. chap. 7.*

What is the substance of the stars.

Quest. But if so be (as you say) the starres are of a like matter with the body of the heavens; how then is it that they are a great deale more cleare and glauncing where they appeare, then the rest of the heaven is?

Answ. Because they are the thicker part, and better remassed together, and of a round Spherick forme, and so more susceptible of light. Now round they must be, for besides, that we discern them so with our eyes; the Moone, and Sunne, are found to bee round. But so it is, that all Starres are of a like forme and matter, but the lesser and the bigger differ only by the lesser or greater quantity of their matter condensed, or conglobed together.

What maketh them so cleare.

Quest. But whether doe they shine with their own innate or inbred light, or is their splendor borrowd from any other beside?

Answ. Some such light they have of their owne, howbeit but little, whatsoever *Scaliger* saith to the contrary in his sixtie two exercitation.

But indeed, the brightnesse of the Starres light sheweth

Of the secrets of NATURE.

The Sun placed
amidst
the Planets &
why.

floweth from the Sun, the fountaine of all light, and that this is either lesfer or more, according to their diversitie of matter, and their equality and inequality, there is no question : For which cause the Sunne is placed in the midst of all the moveable Starres, as in the midway betwixt the starrie firmament, and the first region of the aire, from thence to communicate his light unto all ; so that those which are nearer unto him above, and to us below, doe seeme brighter than these higher above ; as may be seene in *Venus*, *Mercurie*, and *Luna*.



Sect. 3.

*Of the Moone, her light, substance, and Power over all
sublunarie bodyes.*

Quest. **N**OW resolve mee, if the Moone hath not more light of her selfe then the rest ?

Answ. Yea she hath a glimpse of light indeed of her selfe, but that is dimme and obscure ; as may be seene in the sharp-new (as we say :) but as for the fulnesse of that light wherewith shee shineth unto us at the quarters or full, she borroweth that from the Sun. But we may better conceive the weaknesse of her light in her eclipses ; when the earths shadow, interposed betwixt the Sun and her directly, vaileth and masketh her face ; which then appeareth blackishly browne, yet not altogether destitute of light. Now as the light of the Sunne is the fountaine of warmenesse by day ; even so, no question, but the winter and
Summer

What light the
Moone shineth
with.

Summer nights, are at a full Moone warmed more, then during the first or last quarters.

Quest. But is it true which is usually reported, that in the body of the Moone there be mountaines, and valleys, and some kinde of spirituall creatures inhabiting; which *Palingenius* an Italian Poet describeth at length?

Answ. It is certaine, and our *Mathematicians* have found out, that in the Moone there are some parts thicker, some thinner, which make her face not to looke all cleare alike; for that dimmer blackenesse in the middle of it (vulgarly called the Man in the Moone) is nothing else but a great quantitie of the Moones substance not so transparent as the rest, and consequently lesse susceptible of light: which black part of it, with other spots, here and there *Plinius lib. 2. cap. 9.* of his Naturall historie taketh to be some earthly humors attracted thither by her force, and attractive power; which I hardly give way to, in respect of the weaknesse of her force to draw to her any heavy dull and earthly humor, which never transcend the regions of the aire, above all which the Moone is.

what signifieth
the black spots
in the face of
the Moone.

Quest. Now finally, hath the Moone no power over particular sublunary bodies? for I heare much of the influence and power of the Planets over the bodies of Men, Beasts and Plants.

Answ. As for the power and efficacy of the other Planets over us, I have something in the title of Necromancie. As for the Moones power experience sheweth, that the ebbes and flowes of the Sea, (how different so ever the Coasts be) depend totally and constantly

The Moones
power over
sublunarie bo-
dies.

constantly on the full and change of the Moone; for accordingly her waters swell, or decrease. Moreover the braines and marrow in the bones of Man and beast doe augment or diminish as the Moone increaseth, or waneth, as doe likewise the flesh of all shell fishes. Dayly experience too hath taught your Pruners of trees, gelders of cattell, gardners and the like, to observe the Moones increase, and decrease: all which is strongly confirmed by *Plinie* in his second booke *De Historia animalium*, and *Aristotle lib. 4. cap. 41. De generatione animalium*.



Sect. 4.

Of the Element of Fire, whether it be an Element or not, and of its place.

Reasons that
there is not an
element of fire.

Quest. **L**eaving the heavens, their number, matter, Sun, Moone and Starres, I come lower unto the foure Elements whereof the Philosophers will all things below the Moone to be framed and made. First, then I adhere to *Cardan* and *Volaterans* opinion, that betwixt the sphere of the Moone, and the first region of the aire, where the Philosophers place this fire to be, which they make the first element, it cannot be, and so that it cannot be at all; because, that if it were there, we should see it with our eyes; for the Comets, and these lancing Dragons, and falling Stars, &c. whereof many are neighbours with this Ignean-sphere, we visibly see, and the fires which burne on earth also.

Answ.

Ans. There is not a point of Philosophy, which if you reade judiciously, and peruse the Authors treating thereupon, but you shall finde such controversie, concerning the establishing of it amongst themselves, that one to an hundred if you find two or three jumpe together.

Quest. But yet as a Mirrour or Glasse giveth way unto diverse faces, and representeth unto every one their owne visage, although never so farre different from other, while it of it selfe remaineth unchanged or unaltered: So it is with truth, how different soever the opinions bee of the searchers out of it in any Science; yet this verity it selfe abideth in them all, and is alwayes one and alike in it selfe: and so in this point, what ever be *Volateran* or *Cardans* opinion, yet sure it is, that the Element of fire is there; and the cause why it is not seene as are our materiall, and grossly composed fires, of all the Elements mixt together; is the purenesse, subtilenesse, and simplicity (if I may say so) of that Element. Which reason may serve too against them when they say, that if it were there, it should burne all about. And which, likewise, may serve for answer to the objection of the Comets, which are seene: seeing they are of a terrestriall maligne exhalation, and so having in them that earthly mixture, and being inflamed by the neighbour-heate of that fiery Element; no wonder though they bee seene, and not it; her subtil purenesse being free of all combustible matter, and so the lesse conspicuous to our eyes. *τὸ διαφανὲς ὥστε perspicuum, nisi condensetur, est diaphanum, quia visum non terminat*, Jul. Scal. Exer. 9.

Comparison
of a Mirrour
to variety.

Why Comets
are seene
and not the Element
of fire.

There is no such question about the second Element

ment which is the Aire: for of it all agree, that it hath three regions wherein all these you call Meteors are fashioned, as clouds, haile, snow, thunder, wind, and dew; yea, and higher than all these, in the first and supreme Region these blazing Comets, although other men place them above the Moone, which are so formidable to ignorants who know not the causes of their matter.

Quest. Is this so as you give it forth?

Knowledge of
Meteors fit for
men of spirit.

Answ. It is of verity, that the first Element which we call the Element of fire, is disputable, and hath beene denied by many: but as for the Ayre, none (to my knowledge) ever called it in question; neither is there in all our Philosophy a subject more fitting a man of spirit to know, than the discourse of the Meteors therein framed; of all which, although you have a tractate hereafter, by it selfe, yet one word here more to make you understand their nature, and matter, the better.

Section 5.



A brieve Discourse of Meteors, of their causes, matter, and differences.

THE great Creator hath so disposed the frame of this Vniverse, in a constant harmony, and sympathy amongst the parts of it; that these Heavenly Lights, which wee see, above our heads, have their owne force, power, and influence, upon this Earth, and Waters, whereon, and wherein we live; marrying
(as

(as it were) these two so farre distant Creatures, both in place and nature, by the mediation of this Ayre above spoken of; which participateth of both their qualities; warmenesse from the Heavens, and moistnesse from the Earth and Waters. Nature then, but *Melior natura Deus*, or GOD, better than Nature, hath ordained the Sunne, Fountaine of light and warmth, to be the physicall or naturall cause, yea, and the remotest cause, (as wee say in the Schooles) of these Meteors; as *Aristotle* himselfe in his first Book of his Meteors, *cap. 2.* observeth.

The remotest
cause of Me-
teors.

When I speak of the Sun as most principall, I seclude not the Stars, and these celestiall bodies, which rolling about in a per-ennall whirling and rotation, doe lance forth their power upon the Earth also. The neereft Physicall or naturall cause againe, must be understood to be cold and heate; heate from these heavenly bodies, to rarifie or attenuate the vapors of the Earth, whereby they may bee the easier evaporated by the Sunne; or heate, to draw fumes and vapours from the Earth upward; cold againe, to condensate and thicken those elevated vapours in the Ayre; to thicken them, I say, either in clouds, raine, or snow, or the rest.

The neereft
cause.

Thus, as the Meteors have a twofold cause as you have heard, so have they a twofold matter. The first and remotest, are the two Elements, but of them chiefly Earth, and Water: the neerer cause or matter are exhalations extracted from these former two. Which exhalations I divide in fumes and vapours: fumes being a thin exhalation hot and dry, elevated from the Earth; and that of their most dried parts, by the

Their remo-
test matter.

the

the vertue of the heavenly Starres, and the Sunnes warmenesse elevated, I say, by the vertue and warmenesse of the Sunne and Stars, from the driest parts of the Earth, even the Element of fire, from whence, and of which, our Comets, fiery-Darts, Dragons, and other ignean Meteors doe proceed; although later Astronomers have found and give forth, some of the Comets formation to be above the Moone.

Matter and
cause of
the moist Me-
teors.

Whereas vapours are exhalations, thicker, and hotter, swifter drawne up from the Seas and Waters by the power of the Sun and Stars; of which vapors, thither elevated, are framed, our raines, snow, haile, dewe, wherewith (they falling back againe) the Earth is bedewed and watered: When, I say, that these vapours are hot and moist; thinke it not impossible, although the waters, their mother, be cold and moist; for that their warmnesse is not of their owne innate nature, but rather accidentall to them by vertue of the Sunne and Starres warmnesse; by whose attractive power, as the efficient cause, they were elevated. Now then as of fumes, elevated to the highest Region of the Ayre, the fiery Meteors are composed: so of their watery vapours which are drawne no higher than the middle Region, proceeds raine, clouds, snow, haile, and the rest; or if they passe not beyond this low Region wherein we breath, they fall downe into dew, or in thick mysts.

Difference be-
twixt fumes
and vapours.

Thus you see, that these vapours are of a middle or meane nature, betwixt the Ayre and the Waters; because they resolve in some one of the two easily; even as fumes are medians betwixt fire and earth, in respect that they are easily transmuted or changed in the one or the other.

And

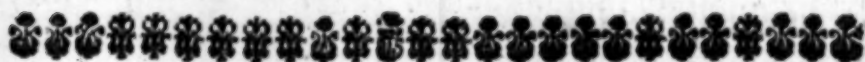
And thus as you have heard the efficient and materiall causes of Meteors: So now understand that their forme dependeth upon the disposition of their matter, for the materiall dissimilitude, either in quantity, or quality, in thicknesse, thinnesse, hotnesse, drinesse, abundance, or scarcity, and so forth, begetteth the Meteor it selfe, different in species and forme, as if you would say, by the abundance of hot and dry exhaled fumes, from the Earth, and the most burnt parts thereof are begot the greater quantity of Comets, winds, thunders; and contrary-ways by the abundance of moist vapours, elevated by the force of the Sunne from the Seas and waters, we judge of abundance of raine, haile, or snow, or dew, to ensue, according to the diverse degrees of light in the Ayrie Region whither they are mounted.

Great differences of the Meteors.

Now, when I said before, that hot exhaled fumes are ever carried aloft, to the highest Region of the Ayre; take it not to be so universally true, but that at times, they may be inflamed even in this low Region of ours here; and that through the Sunnes deficiency of heate, for the time: for as the uppermost Region is alwayes hot, the middle alwayes cold, so is the lower, now hot, now cold, now dry, and againe moist, according to the Sunnes accessse, or recessse from it, as *Aristotle, lib. 1. Meteo. cap. 3.* noteth. And of this sort are these even visible inflammations, which in the Seas are seene before any storme, flaming and glancing now and then, as I my selfe have seene; yea, and sometimes upon the tops of Ships masts, Sterne, and Poope, or such as in darke nights now and then are perceived to flutter about Horse-meines and feet,

What are our S. Anthonies fires.

or amongst people gone astray in darkenights. And these our Meteorologists call *Ignes fatui* & *ignes lambentes*, wilde-fires.



Sect. 6.

That the earth and waters make but one globe, which must be the Center of the world. Of the Seas saltnesse, deepnesse, flux, and reflux; why the mediterranean & Indian Seas have none; Of Magellanes strait, what maketh so violent tyde there, seeing there is none in the Indian Sea from whence it floweth. Of the Southerne Sea or Mare del Zur.

THUS then leaving the Aire, I betake me unto the third and fourth elements, which are the earth and waters; for these two I conjoyne in the Chapter of the world, and that after the opinion of the most renowned Cosmographers, howbeit *Plinius Lib. 2. Naturalis Histor, cap. 66.* and with him *Strabo lib. 1.* distinguish them so, as they would have the waters to compass the earth about the middle, as though the one halfe of it were under the waters, and the other above, like a bowle or Apple swimming in a vessell: for indeede *Ptolomee* his opinion is more true, that the earth and waters, mutually and linkingly embrace one another, and make up one Globe, whose center should be the center of the world.

The earth and waters not severed like the other elements but linked together.

Quest.

But here now I aske, seeing the frame of the universe is such that the heaven circularly encompasseth the low spheares, each one of them another, these the fire,

fire, it the Aire, the aire againe, encompasseth the waters; what way shall the water be reputed an element if it observe not the same elementarie course, which the rest doe, which is, to compasse the earth also, which should be its elementarie place?

Answer. True it is, that the nature of the element is such; but GOD the Creator hath disposed them other wayes, and that for the Well of his Creatures upon earth. Who, as he is above nature and at times, can worke beyond, and above it, for other wayes the earth should have beene made improfitable, either for the production or entertainment of living and vegetable Creatures, if all had beene swallowed up and covered with waters; both which now by their mutual embracing they do: hence necessarily it followeth, that the Sea is not the element of water, seeing all elements are simple and unmixt creatures, whereas the Seas are both salt, and some way terrestriall also.

Why the waters are not about the earth?

How deepe hold you the Sea to be?

Quest.

Answer. Proportionably shallow or deepe; as the earth is either stretched forth in valleys or swelling in mountaines, and like enough it is, that where the mouth of a large valley endeth at the Sea, that shooting as it were it selfe forth into the said Sea, that there it should bee more shallow then where a tract of mountaines end; or shall I say that probably it is thought that the Sea is as deepe or shallow below, as commonly the earth is high in mountaines, and proportionably either deepe or shallow as the earth is either high in mountaines or low and streacht forth in vallies?

But what reason can you render for the Seas saltnesse?

Quest.

C 2

Answer.

Answer. If we trust *Aristotle* in his 2 booke of *Met*reors and 3. as he imputeth the ebbing and flowing of the Sea to the Moone, so he ascribeth the cause of its saltnesse to the Sunne, by whose beames the thinnest and sweetest purer parts of it, are extenuated and elevated in vapors, whilest the thicker and more terrestriall parts (which are left behind by that same heate) being adust become bitter and salt; which the same Author confirmeth in that same place before cited, by this, that the Southerne Seas are saltier, and that more in Summer, then the others are; and inforceth it by a comparison in our bodies, where our urine by him is alleadged to be salt in respect that the thinner and purer part of that moistnesse, by our inborne warmnesse is conveyed and carryed from our stomack (wherein by our meate and drinke it was engendred) thorough the rest of the parts of our body: Neither leaveth he it so, but in his *Problems Sect 23. & 30.* for corroboration hereof he maintaineth, that the lower or deeper the Sea-water is, it is so much the fresher, and that because the force of the Suns heat pierces and reaches no further, then the Winter Cold extendeth its force for freezing of waters unto the uppermost superfiice only, and no further.

If it bee true then that the Seas are salt, wherefore are not lakes and rivers by that same reason, salt also?

Answer. Because that the perpetuall running and streames of rivers in floods hindreth that, so that the sun beames can catch no hold to make their operation upon them: and as for lakes, because they are ever infreshed with streames of fresh springs which flow
and

Why lakes and
running floods
are not salt.

and run into them, they cannot be salt at all: the same reason almost may serve to those who aske, what makes some springs favour of salt, some vitrioll, some of brimstone, some of brasse and the like? To which nothing can be more pertinently answered, then that the diversity of mineralls through which they run, giveth them those severall tastes.

Why some fountaines favour of brasse, or salt, &c.

What have you to say concerning the cause of the flowing and ebbing of the Sea? *Quest.*

Answ. To that, all I can say is this, that *Aristotle* himselfe for all his cunning was so perplexed in following that doubt, that he died for griefe because he could not understand it aright, if it be truth which *Cælius Rhodiginus lib. 29. antiquarum lectionum cap. 8.* writeth of him; it is true indeede (yea and more probable) that many ascribe the cause of his death to have beene a deepe melancholy contracted for not conceaving the cause aright of the often flowing and ebbing of Euripus a day, rather than to the not knowing the true cause of the Seas ebbing and flowing chiefly, seeing Meteor. 2 & 3. he ascribeth it to the Moone the mother and nurse of all moist things; which is the most received opinion, and warranted with the authoritie of *Ptolomee* and *Plinius* both, as depending upon her magnetick power, being of all Planets the lowest, and so the neerer to the Sea; which all doe acknowledge to bee the mistress of moisture, and so no question butto it it must be referred, which may bee fortified with this reason. That at all full Moones and changes, the Seas flowing and swelling is higher then at other times, and that all high streams and tydes are observed to bee so, seeing the

Of the Seas ebbing and flowing.

Moone doth shine alike upon all Seas, what is the cause that the Mediterranean Sea, together with the West Indian-Seas, all along *Hispaniola* and *Cuba* and the Coasts, washing along the firme Land of *America*, to a world of extent, hath no ebbing nor flowing, but a certain swelling, not comparable to our Seas ebbing and flowing?

Why the Mediterranean & West-Indian Seas have no flux or reflux.

Answ. *Gonsalus Ferdinando Oviedes* observation in his History of the West-Indian-Seas, shall solve you of that doubt; and this it is, He compareth the great Ocean to the body of a man, lying upon his back, reaching his trunck from the Pole Artick (from the North and East) to the Antartick, South & West; stretching forth the left Arme to the Mediterranean, the other to the West-Indian-Seas; now the Ocean (as the lungs of this imagined body) worketh, by *Systole* and *Diafole* on the neerer parts to it, & maketh a flux and reflux where its force faileth in the extremities, the hands and feet, the Mediterranean and Indian Seas.

Of Magellanes Strait, what maketh so violent a tyde there.

Quest. How is that possible; that you admit no flux nor reflux to the West-Indian-Seas; seeing their Histories informe us, that at *Magellanes*-strait, that same West Sea doth glide through the firme land of *America*, into the *Mare Del Zur*, and that with such rapiditie and verriginousnesse, that no Ship is able with Wind or Art to returne from that South-Sea backward?

Answ. That must not be thought so much a flowing as the course of Nature, whereby the Heavens, Sun, Moone, and Stars, yea, and the Sea, doe course from East to West, as that Strait doth run. I may joyne

joyne to this the Easterly-wind which of all others bloweth most commonly (as elsewhere) so there also, which furthereth that violent course: and of this opinion is *Peter Martyr* in his Decads upon the Historie of that Countrey.

Quest. Admit all be true you say: but what have you to say to this, that the *Mare Del Zur* hath flux and reflux, and yet your West-Indian-Seas have little or none, as you confesse? how then can the Moone be the cause of the universall Seas ebbing and flowing, seeing they two under one Moone both, are nevertheless so different in Nature, and yet so neere in place?

Why the *Mare Del Zur* hath flux, and not the neighbouring Sea.

Answ. Seeing *Ferdinando Oviedes*, who was both Cosmographer & Hydographer leaveth that question undilucidated, as a thing rather to be admired than solved, leaving to the Reader thereby (in a manner) to adore the great Maker, in the varioulnes of his works; I thinke much more may I be excused not to pry too deeply in it.

Quest. What is the cause then, seeing the Moone is alike in power over all waters, that Lakes and Rivers flow not and ebbe not as well as the Sea doth?

Answ. Because these waters are neither large nor deepe enough for her to worke upon, and so they receive but a small portion of her influence.

Quest. What is the reason? why, seeing the Sea is salt, that the Rivers and Fountaines which flow from her (for we all know that the Sea is the Mother of all other waters) as to her they runne all back againe (*exinde fluere*, saith the Poet, & *retro sublapsa referri*) are not salt likewise?

Why Lakes & Rivers ebbe not nor flow not.

Answ. Because the Earth through whose veines

and conduits these waters doe passe to burst forth thereafter in springs, cleanse and mundifieth all salt-nesse from them as they passe.

Why the Sea
waxes never
more nor lesse
for all the wa-
ters runne to
and from it.

It seemeth that your former discourse maketh way for answer to such as aske, why the Sea doth never de- bord nor accreace a whit, notwithstanding that all o- ther waters doe degorge themselves into her bosome, the reason being, because there runneth ever as much out of her to subministrate water to springs and ri- vers, as she affordeth them.

Quest.

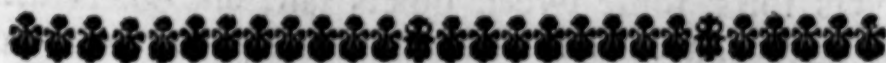
If the Seas be
fresh some fa-
thomes below
the superfice,

But is it possible which is reported that our late Navigators have found by experience, that the Seas water so many fathomes below the superficies is fresh so that now they may draw up waters to their shippes by certaine wooden or rather yron vessells, which ovally closed, doe slyde thorough the first two or three fathomes of the salted superfice downe to the fresh waters, where artificially it opens, and being fil- led, straight shutteth againe, and so is drawne up, which they report to have but small difference in tast from the waters of fresh Rivers, which (if it bee true) is a strange, but a most happily discovered secret.

Answ. Yea it is possible, for probably it may be thought, that the Sunnes raies which before are gran- ted to bee the cause of the Seas saltnesse, penetrate no further than the first superfice; like as on the con- trary the coldnesse of the Northerne windes freezeth, but the uppermost water congealing them into Ice; or the reason may better be the perpetuall and con- stant running and disgolfig of Rivers, brookes and springs from the earth into it: And verily I could be induced

induced to thinke the Mediterranean sea, the Sound of Norway, and such like which lye low, and are every where encompassed with the higher land except where they breake in from the greater Ocean, that such Seas should be fresh low, in regard of the incessant currents of large Rivers into them, and in respect they doe not furnish water back again to the springs, rivers, and fountaines, seeing they are low beneath the earth; yea it hath troubled many braines to understand what becommeth of these waters which these Seas dayly receive: but it cannot bee received for possible, that the waters of the great Ocean are fresh, at least drinkably fresh under the first two or three fathomes, it being by God in natures decree made salt for portablenesse.

The probability, that certaine Seas may be fresh low.



Sect. 7.

That the Mountaines and valleys dispersed over the earth, hindreth not the Compleatnesse of its roundnesse: Of burning mountaines, and Caves within the earth.

BVt leaving the Sea, thus much may be demaunded concerning the earth, why it is said to be round? since there are so inaccessible high mountaines and such long tracts of plaine valleys scattered over it all?

Quest.

Answ. These mountaines and valleys are no more in respect of the earth to hinder its roundnesse, then a little flie is upon a round bowll, or a naile upon a wheele.

and conduits these waters doe passe to burst forth thereafter in Springs, cleanse and mundifieth all saltnesse from them as they passe.

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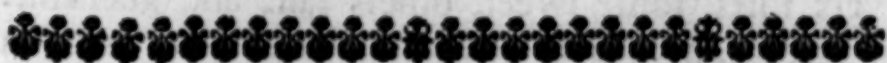
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the super fice.

But is it possible which is reported that our late Navigators have found by experience, that the Seas water so many fathomes below the superficies is fresh so that now they may draw up waters to their shippes by certaine wooden or rather yron vessells, which ovally closed, doe flyde thorough the first two or three fathomes of the salted superfice downe to the fresh waters, where artificially it opens, and being filled, straight shutteth againe, and so is drawne up, which they report to have but small difference in tast from the waters of fresh Rivers, which (if it bee true) is a strange, but a most happily discovered secret.

Ans. Yea it is possible, for probably it may be thought, that the Sunnes raies which before are granted to bee the cause of the Seas saltnesse, penetrate no further than the first superfice; like as on the contrary the coldnesse of the Northerne windes freezeth, but the uppermost water congealing them into Ice; or the reason may better be the perpetuall and constant running and disgolfeing of Rivers, brookes and springs from the earth into it: And verily I could be induced

induced to thinke the Mediterranean sea, the Sound of Norway, and such like which lye low, and are every where encompassed with the higher land except where they breake in from the greater Ocean, that such Seas should be fresh low, in regard of the incessant currents of large Rivers into them, and in respect they doe not furnish water back again to the springs, rivers, and fountaines, seeing they are low beneath the earth; yea it hath troubled many braines to understand what becommeth of these waters which these Seas daily receive: but it cannot bee received for possible, that the waters of the great Ocean are fresh, at least drinkably fresh under the first two or three fathomes, it being by God in natures decree made salt for portableness.

The probability, that certaine Seas may be fresh low.



Sect. 7.

That the Mountaines and valleys dispersed over the earth, hindreth not the Compleatnesse of its roundnesse: Of burning mountaines, and Caves within the earth.

BVt leaving the Sea, thus much may be demaunded concerning the earth, why it is said to be round? since there are so inaccessible high mountaines and such long tracts of plaine valleys scattered over it all? *Quest.*

Ans. These mountaines and valleys are no more in respect of the earth to hinder its roundnesse, then a little flie is upon a round bowll, or a naile upon a wheele.

wheele to evince the rotunditie of it, for the protuberances of such knobs deface not the exact roundnesse of the whole Globe, as not having a comparable proportion with it.

But what signifie these burning mountaines so frightfull to men, which may be seene in severall places of the earth; as that of *Island* called *Hecla*, in *Sicilie* called *Ætna*, besides the burning hills of *Naples* which I have seene, one in *Mexico* in our new found lands of *America* so formidable as is wonderfull: If the earth be cold as you give it forth to be; then how can these mountaines burne so excessively; or if they bee chimneys of hell venting the fire which burneth there in the center of the earth, or not?

Reason for the
burning hills
which are in
divers Coun-
tries.

Ans. No question, but as there are waters of divers sorts, some sweet, others salt, and others sulphureous, according to the minerall veynes they run thorough; right so there be some partes of the earth more combustibile then others, which once being enflamed and kindled either by the heate of the Sunnes beames, or by some other accident, and then fomented by a little water (which rather redoubleth the heate then extinguisheth it; as we see by experience in our farriers or smiths forges, where to make their coales or charcoales burne the bolder, they bedew or besprinkle them with water) they hold stil burning, the sulphureous ground ever subministrating fewell to the inflammation. But they and the like do not hinder the earths being cold, no more, than one or two Swallowes make not the spring of the yeare.

But yet, if so be the earth be so solid and massie as you say it is, and that it admitteth no vacuitie; How
and

and whence proceede these terrible earth-quakes, tremblings, palpitations, to the overwhelming of Cities, shaking of Towers and steeples, &c.

Ans. No question but as these are commonly prodigies and fore-runners of Gods wrath to bee inflicted upon the Land where they happen, as may be seene in the second booke of the *Kings chap. 22. Com-mota est, & contremuit terra, & quoniam iratus est Dominus*; So some way lacke not their owne naturall causes: and they be chiefly comprehended in one for all, and this is it, that the earth is not unfitly compared unto a living mans body, the rocks and stones whereof are his bones, the brookes and rivers serpentine thorough it, the veynes and sinewes conveying moistnesse from their fountaines unto all the members; the hollow of our bowells and of the trunke of our bodies, to the vast and spacious cavernes and caves within the body of this earth (and yet these not hindering the massinesse of the earth, for where earth is, it is massie indeed) within the which hollow of our bodyes our vitious windes are enclosed, which if they have no vent, presently they beget in us *Iliak* passions, collicks, &c. whereby our whole body is cast into a distemper and disturbed; even as the windes enclosed in these cavernes, and hollow subterranean places, preassing to have vent, and not finding any, making way to themselves, do then beget these earth-quakes. And of this opinion is *Aristotle lib. 2. Meteor. cap. 7.*

The true cause of earth-quakes.

The comparison of the earth and mans body.

Section



Sect. 8.

Of time, whether it bee the Producer or Consumer of things : of the wisdom, and Sagacity of some Horses, and Dogges : How the Adamant is Mollified of the needle in the Sea compass : and the reason of its turning alwayes to the North.

Reasons why
there is no
time.

Seeing there is nothing more properly ours, than time, and seeing it is the eldest daughter of nature ; How is this, that you Philosophers bereave us of our best inheritance saying that there no time at all : in respect (say you) the time past, is gone, the future and time to come is not yet, and the time present is ever glyding and running away, yea and your *Aristotle* calleth it but a number of motions : seeing then it consisteth but of parts not having a permanent being, it cannot be said to be at all, say you.

The Reasons
confuted.

Answ. Our true Philosophers reason not so, it is but our Sophists who by their insnaring captions doe cavil thus, therefore take heed of the subdalousnesse of their proposition, which is not universally true : for admit that maxime might hold, concerning the standing and not standing of a thing in its parts, in subjects materiall essentiall and permanent, yet it must not everr things of a fluid and successanean nature, such as time is : and whereas they say that the parts of time are not, they mistake ; in so farre as time is to be measured by now, which the Greekes doe terme *τὸ νῦν*, which ever existeth, and by which indeed time is said properly to have existence.

Quest

Quest. What things hold you to be in Time? or whether is Time the consumer, or the producer of things?

Ans. To the first, with *Aristotle*, I understand onely such things to be in Time as are subiect to mutations, changes, risings, and fallings, such as are all naturall things below the Sphere of the Moone; by which meanes, things sempiternall wanting both beginning and ending, whose diuturnity cannot be measured by time, cannot fall under it.

What things
are said to be
in Time.

2. *Ans.* To the second, whether Time be the producer or consumer of things; I answer, that as in the contravertible points of Philosophy our learned disagree amongst themselves; so herein they agree not aright; indeed *Aristotle* (whom customably we all follow) in his 8. *Cap. lib. 4. Physicōn*, will have Time rather to be the cause of the ruine and decay of all things, and that by vertue of its motion, by which sublunary bodies are altered and corrupted, rather than of their rising, increase, or growing. And with him many of our Poets,

Tempus edax rerum, tuque invidiosa vetustas

Omnia conteritis, ——— and againe,

Omnia fert atas, animum quoq̃, &c.

Tempora labuntur, tacitisq̃ senescimus annis,

Et fugiunt (frano non remorante) dies.

Aristotles opinion, that Time is the ruine of things how to be expounded.

To which opinion of *Aristotle Cardan* adhereth, calling Time the Author of life and death: but as *Iulius Scaliger* hath refuted divers of his opinions in his exercitation, 352. not without reason hath he confuted this also, making Time to be an accidentall cause of the decay of things; for beside Time there must

must be *causa agens* which is the Law of Nature ingrafted in all things living, moving, creeping, vegetating, by which they tend to ruine: as sinne in Man (besides his naturall corruption) is, and must bee thought the Author of his death.

Quest.

Of the witt-
nesse of Dogs
and Horses.

Of the love of
a Dog to his
Master.

Now seeing your Philosophy admitteth no other difference betwixt Men and Beasts, but the use of reason, wherewith we are endued above them; how wil you tearme those many reasonable things performed by Beasts, wherof our Histories are full: as that of *Bucephalus* of *Alexander* the Great, who would suffer none to back him but his Master, though never so artificially disguised in his apparell; *Iulius Caesar* his Horse likewise, who at his death was observed to fast so long, is remarkeable: and that of *Nicomedes*, who because his Lord was killed in the field, choosed rather to dye starving for hunger, than to survive him: Stories of the sagacity of Dogs, bookes are fully replenished wth; the example of one only shall suffice; “ This Dog being with his Master, when a Robber
“ killed him for hispurse, and had flung him into a
“ River that he might not be found againe, did first
“ leape into the River after his dead Master, and then
“ upon his shoulders bore up his head so long, as any
“ breath was remaining within him, thereafter discer-
“ ning him to be dead, straight followes the rogue by
“ his sent to the Citie, finds him, and incessantly bark-
“ eth at him whithersoever he went; while at length,
“ his Master being missed, and the Rogue under sus-
“ picion of robbery, and the Dogs violent pursuing
“ the fellow drew the people into a jealousie of the
“ murther: whereupon the robber being called be-
“ fore

"fore a Iudge, after due examination confessed the
 "murther, was condemned, & died for the fact. Now
 I demand, if these and the like doings of Beasts be not
 founded upon reason whereof we men brag as of a
 greater prerogative above them?

Discourse of a
 Dogs memory.

Ans. No wayes; for we must distinguish be-
 twixt actions of true reason, such as ours are; and these
 which are done by a naturall instinct or sensitive fa-
 culty of sagacity, use and custome, but most es-
 pecially, from that which is a neere tying bond
 even amongst the cruellest of Beasts, a perpetuall
 resenting of a good turne received; as is manifest
 in the example of the Lion, who not onely saved
 the life of that poore condemned caitive, who fled
 into his denne and cave, because he pulled out of his
 pawe the thorne which molested him, but likewise fed
 him, by killing beasts of all sorts and bringing them
 unto him; whereof *Gellius* at length; and out of him

Distinction
 between things
 done by reason
 and a naturall
 inclination.

Du Bartas.

If I should follow forth here all other questions of
 Natures secrets, the taske were long and tedious, and
 peradventure, lesse pleasant to the Reader, than pain-
 full to me: as why, the Adamant-stone which (of
 its owne nature) is so hard, that neither fire nor Iron
 can bruise or break it, is neverthelesse broke in peeces
 in a dishfull of hot Goates-bloud, soft bloud being
 more powerfull than hard Iron? Whether fishes doe
 breath or not, seeing they have no lungs the bellows
 of breath? What can be the cause of the Loadstones
 attractive power to draw Iron unto it? Why, some
 Plants and Herbes ripen sooner than others? Or
 what makes a member of a Man or Beast being cut
 from

That certaine
plants & herbs
will grow
kindlier toge-
ther than
others.

from the body, to dye presently; and yet branches of trees cut off will retaine their lively sap so long within them? Whether or not there be such affinity, and to say love amongst plants and herbes, that some will more fruitfully increase, being set, planted, or sown, together, then when mixed amongst others, according to that of the Poet,

*Vivunt in Venerem frondes, omnisq; vicissim
Felix arbor amat, nutant ad mutua palmæ
Fœdera, populeo suspirat populus ictu, &c.*

To which questions, & some others hereafter to be handled, for me to give answer, were no lesse presumption and foole-hardinesse, than a demonstration of my grosser ignorance; since, *Cardan* and *Scaliger* are so farre from agreement in these matters, as may be seen in *Scaligers* Exercitations; yet having propounded these questions, and to say nothing of my owne opinion touching the solution of such Riddles (as wee call them) were someway an imputation; and I might be equally blamed with those who leade their neighbour upon the Ice, and leave him there; wherefore thus I adventure.

And first, why the Adamant which for hardnesse is able to abide both the force of the fire, and dint of any hammer, yet being put in Goates-bloud, parteth asunder.

Ans. Howbeit *Scaliger* in his 345. Exercitation Sect. 8. giveth no other reason than that absolutely, it is one of the greatest miracles and secrets of Nature; and therein refuteth their opinions, who alleage the Analogie and agreement of the common principles of Nature; which are common to the bloud and to the

the Adamant together, to be the cause; yet I thinke for my owne part, that if any naturall reason may be given in so hidden a mystery, it may be this; That Goates (as we all know) live and feed usually on cliffie Rocks wheron herbes of rare pearcing and penetrative vertues and qualities grow; (neither is the derivation of that herbes name Saxifrage other, than from the power it hath to breake stones asunder) Goates then, feeding on such rockie-herbes as these, no wonder that their bloud having Analogie and proportion to their food, be penetrative, and more proper to bee powerfull in vertue, than otherwayes convertible in fatnesse, for wee see them of all grazing Beasts the leanest.

The true cause how the hard Adamant is dissolved in a dish of Goats bloud.

Quest. Now by what power draweth the Loadstone Iron unto it?

Answ. *Aristotle* in the 7th. Booke of his Physicks which almost al other Philosophers do affirme, That the Loadstone attracteth Iron unto it by their similitude and likenesse of substances; for so you see they are both of a like colour: and that must be the cause how the false-Prophet *Mahomet*, his Chest of Iron, wherein his bones are, doth hang miraculously unsupported of any thing, because either the pend or some verticall stone of the Vault where it is kept, is of Loadstone: and thus with *Iulius Scaliger*, *Exercitatione*, 151. I disallow *Caspar Bartholinus* his opinion, who alleageth that the Loadstone doth not meereley and solely by its attractive faculty draw Iron unto it, but for that it is nourished and fed by Iron; for nothing more properly can bee said to feed, than that which hath life. Therefore, &c.

What maketh the Loadstone draw Iron.

What maketh
the Needle in
a Sea compasse
turne ever to
the North.

Here also it will not be amisse to adde the reason why the Needles of Sea-compasses (as these of other Sun-Dyals) being touched by the Loadstone, doe alwayes turne to the North; and this is the most received; That there is under our North-Pole a huge black Rock under which our Ocean surgeth and issueth forth in foure Currants, answerable to the foure corners of the Earth, or the foure winds, which place (if the Seas have a source) must bee thought to be its spring; and this Rock is thought to be all of Loadstone; so that by a kinde of affinity (it would seeme) by a particular instinct of nature, it draweth all other such like stones or other metals touched by them towards it. So that the reason of the Needles turning to the North in Compasses is that *Nigra rupes* of Loadstone lying under our North Pole: which by the attractive power it hath, draweth all things touched by it, or its alike thither.



Section 9.

Of Fishes, if they may be said to breath, seeing they lack pulmons: Of flying fishes, if such things may be, &c. which are the reasons of their possibility, are deduced, exemplified.

Quest. **B**VT whether and after what manner can Fishes be said to breath, seeing they have no lungs, the bellowes of breath?

Ans^w. This question hath beene agitated many Ages agoe, both *pro & contra*, as we say; *Arist. cap. I.*

De

De respiratione, denying that they can breath: *Plato* and divers others of his Sect affirming the contrary: they who maintaine the negative part do reason thus; Creatures that want the Organs and Instruments of breathing, cannot be said to breath or respire; but such are all fishes, therefore, &c.

Reasons pro
and contra
that fishes
breath.

The opposites on the other side doe thus maintaine their breathing; all living creatures not onely breath, but so necessarily must breath that for lack of it they dye, as experience sheweth: nay, that the very insects, or (as you would say) demi-creatures, they must breathe: but fishes are living Creatures, therefore they must breathe. The Aristotelians answering this, distinguish the major proposition, restraining the universality of it but to such Creatures as live in the Aire, whereas there is no Ayre in the water, the nature of it not admitting place for Ayre as the Earth doth, which being opened with any Instrument, as with a Plough or Spade, may admit Ayre; whereas the waters will fill all the void presently againe, as we may see by buckets, boxes, or any other materiall thing, being put into the water, and taken out againe, doe leave no *vacuum* behinde them; for the waters doe straight wayes reincorporate: seeing then there is no Ayre in the Fishes Element, they cannot nor need not be said to breath; for contrariwise wee see that being drawne from the waters to the Ayre they doe incontinently dye.

For answer to both extreames, I could allow for fishes a kind of respiration called refrigeration, which improperly may be said to be respiration; but since nothing properly can be said to breath but that which

What way fishes
may be said
to breath.

hath lungs, (the instruments of breathing) which indeed fishes have not : The conclusion is cleare ; That they have rather a sort of refrigeration, then respiration.

If herring can
flye.

Quest. But is it of truth which wee heare of our Navigators, that in the Southerne seas they have seene flying fishes, and herring like a foggie or moist cloud fleeing above their heads, and falling againe in the Seas with a rushing and flushing ?

Ans. Yea I thinke it possible ; for the great Creator, as he hath created the foules of the Aire, the beasts of the earth, and the fishes of the Sea, at the first creation, in their owne true kindes ; So hath hee made of all these kindes *Amphibia.* And as there are foure footed beasts and fowles of double kinds, living promiscuously on land and water, why may there not be fishes of that nature also ? of which hereafter. So hath hee indued the Aire (as the more noble element of the three) with that prerogative ; that in it, either fowles or watery creatures might be engendred ; out of vapors either moist or terrestriall, or extracted from standing lakes, stanckes, marishes, myres, or the like oyle and marshie places ; which waters, elevated to the Aire, by the violent operation of the Sunnes beames, either from the Seas, or the fore-said places, by the benefit of the warme Aire, where they abide, as in the fertile belly of a fruitfull mother, doe there receive the figure either of frogge or fish, according to the predominancy of the matter whereof that vapor is composed ; from whence againe as all heavie things doe tend downeward, so doe they also. Which hath made some suppose that herrings,
(by

How herring
may be engendred in the
Aire.

(by them called flying fishes) doe descend from the aire, their place of generation: whereindeed more truly, the error commeth this way; the Herrings, in their season, doe come in great shoales (as Sea men say) upon the superface of the waters, where scudding along the coasts, some sudden gale of wind (they being elevated upon the top of some vaste wave) may chance to blow them violently so farre, till they encounter, and light on a higher billow, which hath made Marriners thinke they flie.

A sea-saying
reason why
herring may
flie.

Quest. What have you to say to this, that as there are fishes extraordinary, so I have heard of fowles without either feete or plumes?

Answ. Fowles they cannot be, because fowles are defined to be living creatures feathered and two footed; and since these are not such, fowles they cannot be: And yet *Iulius Scaliger exercitatione 228. sect. 1. & 24.* maketh mention of them, calling them Apodes, which Greeke word is as much as without feete.

Apodes, or
fowles without
feet or Plumes.

Quest. But, leaving the various diversities of fowles, as the Geese who hatch their egges under their paw, or foote, and the like, how doe those claick geese in Scotland breed, whereof *Du Bartas* maketh mention as of a rare work of nature?

Of Claick
Geese.

Answ. Their generation is beyond the ordinary course of nature, in so much that ordinarily one creature begetteth another; but so it is, that this fowle is engendred of certaine leaves of trees, out of which in a manner it buddeth, and ripeneth; Now, these trees

growing upon the bankes of lakes, doe, at their due time, cast these leaves, which falling into the lake, doe there so putrifie, that of them is engendred a Worme, which by some secret fomentation & agitation of the waters, with the Suns helpe, groweth by little and little to be a fowle somewhat bigger than a Mallard, or wild Duck; and in those waters they live and feed, and are eaten by the inhabitants thereabouts.

Diverse kindes
of Insects.

Sea Insects.

First then, I resolve their questions who argument against the possibility of this generation, and then I shall cleare you of that doubt you have proposed: thus it standeth then with these Argumentators; when *Aristotle* in his last chapter of his third booke *De generatione animalium*, before he had dissensed the materiall causes of all kind of perfect creatures, In the end falleth upon the materiall cause of insects, and so of the lesse perfect; one kinde of them he maketh to be produced of a Marish clay an earthie and putrified slimie substance, whereof wormes, froggs, snailles and the like are produced; the Sun beames, as the efficient cause, working upon that matter; The other sort is more perfect, and these are our Bees, waspes, flies, midges and so forth, which are engendred of some putrified substance, as, peradventure, of a dead horse, oxe, or asse; out of which by the operation of the environing aire, and the internal putrefaction together they are brought forth: The insects of the Sea are said to have the like generations, whereof *Aristotle* *De historia Animalium*, lib. 1. cap. 1. *Et in libro de respiratione*; and lately the learned *Scaliger Exercitatione* 191 sect. 2. Notwithstanding the venerable testimony and authority of such famous Authors; yet our beleivers

beleevers of miracles doe reason thus both against the generation of the Claik Geese; and of the Insects also.

Every thing begotten must be engendred of a like unto it selfe, as men, horse, Sheepe, Neat, &c. engender their life; and this by the warrant and authoritie of *Aristotle* else where, but particularly *cap. 7. Meteor.*

Reasons why
Insects are not
propagated by
a Celestiall
heat.

Text 2.

Quest. But so it is that the body of the heavens, the Sun and his heate, are no wayes *similia* or alike unto these Insects produced and procreated from the slymie and putrified matters above rehearsed.

And therefore that cannot be the way of their generation. Thus they.

Ans. To this answer must be made Philosophically, in distinguishing the word alike to it selfe; for things may be said alike unto other, either of right, or univocē as they say in the Schooles: That way indeed our Insects are not a like to the putrified earth or beast they came of, but Analogice they may be said to be alike, that is, in some respect, in so farre as they communicate in this, that they are produced of the earth, and by the warmenesse of the Sun, which are things actually existing.

Quest. Now to cleere the question concerning fowles wanting feete and feathers; whether may such things be, or not?

Ans. Yea, for as the great Creator hath ordained in nature betwixt him selfe and us men here, Angels, yea good and bad spirits; betwixt sensitive and insensitive Creatures, mid creatures which wee call Zoophyta, and Plantanimalia, as the Fishes *Holuthuna*, *stellama-*

What middle
Creatures are.

rina, Pulmo marinus, &c. Even so betwixt fowles and fishes, nature produced middle or meane creatures, by the Greekes called *αμφίβια*, or beasts of two lives; partly living by waters, partly by earth; And of this sort these fowles must be, as betwixt land beasts and fishes, are frogs, and Crocodills; and some others the like.



Sect. 10.

Of fishes, and their generation: How fowles are generated in the waters. If gold can be made potable; and of the matter of precious stones.

Question. **B**Vt you have not as yet sufficiently enough satisfied my minde of that scruple, wherewith it was perplexed: for I was saying that if things on the earth were propagated by their likes, as by the authority of *Aristotle* I did instance, and almost unto that the Lyrick Poet *Horace* applaudeth while he saith, although not to this purpose wholly, *fortes creantur fortibus*, and againe, *Nes imbellem feroces progenerant aquila columbam*; then how can fishes be said to live, and have their substance of, and by the Sea? For if the Maxime both of Philosophie and medicine hold good, that we exist and have our being of those things wherof we are nourished; surely fishes existing of a more grosse and more materiall substance than water is, cannot be said to live by the Sea; much lesse Fowles, seeing their flesh is more terrestriall, and for that cause they build and bring forth their young ones upon the Land; whereas otherwayes it should

How fishes can
be said to live
by the Sea see-
ing their flesh
is more firme
then the wa-
ter wherof
they are gene-
rated.

should seeme that they live and have their essence, and existence from the Sea: for in *Genesis* we read, that the Great Creator commanded the waters to produce swimming, creeping, and flying creatures upon the Earth:

Answ. With *Aristotle* whom you object to mee, you must consider, that in the fire and ayre no Creature is framed: For so in the 4th. Booke of his *Meteors* he holdeth: from them two indeed he admitteth vertue and power to bee derived to those which are created upon the Earth, and in the Waters; true it is, that Fowles being volatile Creatures, their generation should have fallen by lot in the Ayre; but in respect that none can be well procreated there, the next Element became their bringer forth; as neereft in nature to the Ayre, and as being little lesse than a condensed Ayre, from which these Fowles might soone flye up: so that all things here below being made up of a dry, and then of a thickned moist matter, which are the Earth and Waters; no marvell, that properly of them all things are procreated: howbeit they may be said to have their temperament and vertues from the superior two, fire and ayre: and where it may be objected how the matter of Fishes should be so firme and solid, they being nourished by the thin, waterish, and slimy substance of the waters; it must be considered that the Seas and waters are not so exempted of some mixture of earth in them, but that even as the Earth some way participateth of them, so they impart partly to it their moistnesse againe; of which mixture both Fowles and Fishes doe live.

How fowles
are brought
forth in waters

The cause of
the firme flesh
of fishes.

Quest.

Quest. What is your opinion concerning the potablenesse of Gold, after which, our Chymists, and Extractors of quintessences, Calcinator, and Pulverizers of Metals make such search and labour; whereby Gold made drinkable (as they undertake) our youth neere spent may be renewed againe, all diseases cured, and the drinker thereof to live for many Ages?

That Gold
cannot bee
made potable.

Ans. Although Gold of all Metals be the King, as the Sun amongst the Planets, and that it is the softest of all, and most volatile, so the easiest to bee extended and wrought upon; in so much, that one Ounce of it is able to cover many Ounces, and Pounds of Silver: yea, although of all Metals it abideth the trial of the fire best, and loseth nothing by it, as *Arist.* in the 3. Booke of his Meteors, *cap. 6.* observeth; yet that it may be made potable I doubt much of it, and am a Galenist in that point, and that for these two notable reasons which *Julius Scaliger* setteth downe in his 272. Exercitation.

First, because there must bee some resemblance betwixt the body nourished and the thing that nourisheth; which no more holdeth betwixt our bodies and gold, than betwixt a living and a dead thing.

Secondly, because nothing is able to nourish us, which the heate of our stomach is not able to digest: But such is Gold, and therefore, &c. Alwayes of the worth and vertue of Gold, reade *Plinius*, *lib. 1. c. 3. cap. 1.*

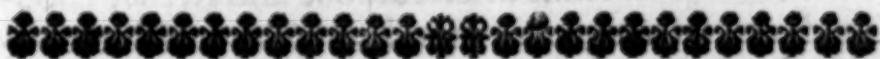
The matter of
precious stones

Quest. Now what is the matter of precious-Stones; earth it cannot be; for it is heavie, dull, and blackish coloured; they are glitteringly transparent like Stars: water it is not, for even CrySTALLINE Ice will dissolve, whereas

whereas they for hardnesse are almost indissoluble: yet *Cleopatra* is said to have liquefied a Pearle to *Anthony*.

Answ. They are of most purified earth, not without some mixture of moistnesse, but such as are both mavelously by the force of the Sun subtilized, tempered, and concocted.

Section II.



Of the Earth, its circumference, thicknesse, and distance from the Sunne.

OVR Cosmographers generally, but more particularly our Geographers have beene very bold to take upon them the hability (as I am informed) to shew how many graines of Wheate or Barley will encompasse the whole Earth, which I esteeme a thing impossible to any mortall man to doe, and therefore frivolous to be undertaken: and I think it very much, if they can demonstrate how many Miles it is in compasse, leaving to trouble their wits with the other: yet hereupon I desire to be resolved.

Answ. The Philosophicall generall knowledge of things, is twofold, either knowing things which fall under the reach of their Science in their effects, thereby to come to the knowledg of the cause; or contrariwise, by the cause first to know the effects to come. But the Mathematicall demonstrations, whereof Geometry is a part, consist not in these speculations, but in reall demonstrations; and that in such sort, that their

Quest.
Two Philosophicall wayes to know things.

their positions being once well founded, thereon they may build what they please; whereas on the other side, a little error or mistaking in the beginning, becommeth great and irreparable in the end: and so to make way to your answer; there is no question, but if once a Geometrian give up the infallible number of the Miles which the Earth will reach to in compasse, but soone and on a sudden hee may shew how many graines will encompassse it; for it is universally held that the Earth is in circuit one and twenty thousands and so many odde hundred Miles; a Mile consisteth of a thousand paces, a pace of five feet, a foot of foure palmes, a palme of foure fingers breadth, a fingers beadhth of foure Barley cornes; and so from the first to the last, the number of the Miles holding sure, the supputation of the graines number will cleere it selfe by Multiplication.

Quest. By that meanes I see you seeme to make no difficulty of that whereof I so much doubted?

Ans. No indeed; and in this point I perceive how farre learned men are to be respected above ignorants; yea as much as Pearles, Diamonds, or precious Stones are to be preferred to grosse Minerals.

Quest. Seeing all depende upon the knowledge of the Earths compasse, then how many Miles hold you it to be in roundnesse?

Ans. The discovery of our new found-lands, and the confident assurance which our moderne Navigators and Mappers have of this *Terra australis incognita*, maketh that punctually not to be pointed out: but what may satisfie in that, or in knowing how thick the masse of the Earth is, in how many dayes a man might

What teeteth
that We can-
not aright give
up the supputa-
tion of the
Earths circum-
ference.

might compasse it about, if by land it were all travel-
lable: or conjecturally to shaddow how great is the
distance betwixt the Earth and the Firmament, I re-
ferre you to the Title of Curiosity following; for as
I finde a discrepance amongst our most learned Wri-
ters, in divers most important heads of their profes-
sion; So in this point also I finde them variable and
disassenting; for *Elias Vineti* commenting on *Sacrobosc* Diversity of
opinions con-
cerning the
worlds Com-
passe.
upon that Text, giveth forth the Earths compasse to
extend to above two hundred and fifty thousand *sta-*
dia, whereof every eight maketh up our Mile; which
shall farre exceed the most received opinion of our
expertest Mathematicians; who by their moderne
Computations make the reckoning of its circumfe-
rence but to amount to one and twenty thousand
miles and six hundred; & that answerably to the three
hundred and sixty degrees wherewith they have divi-
ded the great heavenly Circle, and proportionably
thereunto the Earth.

Yet pondering aright the discrepance and oddes
which doth arise betwixt our learned Authors, con-
cerning the compasse of the Earths Globe, wee shall
perceive it to proceed from the great diversity of
Miles in divers Nations, every man understanding
them to be the Miles of that Nation wherein hee li-
veth: but speaking to our Natives of *Britanne*, it is
found by daily experience of Mathematicians, that if
a man goe 60. of our British Miles further to the
North, then (I say) visibly he shall perceive the Pole
to rise a degree higher, and the Equinoctiall to fall a
degree lower; whereby it is manifest, that to one de-
gree of the great Circle of heaven (such as is the Me-
ridian)

their positions being once well founded, thereon they may build what they please; whereas on the other side, a little error or mistaking in the beginning, becommeth great and irreparable in the end: and so to make way to your answer; there is no question, but if once a Geometrian give up the infallible number of the Miles which the Earth will reach to in compasse, but soone and on a sudden hee may shew how many graines will encompasse it; for it is universally held that the Earth is in circuit one and twenty thousands and so many odde hundred Miles; a Mile consisteth of a thousand paces, a pace of five feet, a foot of foure palmes, a palme of foure fingers breadth, a fingers beadh of foure Barley cornes; and so from the first to the last, the number of the Miles holding sure, the supputation of the graines number will cleere it selfe by Multiplication.

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 gree of the great Circle of heaven (such as is the Me-
 ridian)

The earths circumference or compasse.

Meridian) there answereth on earth 60. of our myles; Now there being in every such great circle 360. degrees or equall parts, multiplying 360. by 60; wee finde that they produce 21600. myles British: for a line imagined to passe by the South and North Poles, and so encompassse the earth, would easily appeare to amount to the same computation.

The thicknesse of the earth.

As for the diametricall thicknesse of the earth; the proportions of a circles circumference to its diameter (or lyne crossing from one side to the other thorough the centre) being somewhat more than the triple, such as is the proportion of 22 to 7. called by Arithmeticians triple Sesquiseptima, triple with a seaventh part more; and seeing the circumference of the great circle of the earth is a little lesse than 22000 myles; it followeth, that the thicknesse or diameter of it from face to face, is a little more than 7000. And consequently the halfe diameter, viz. from the circumference to the centre neer about 3600 miles. Now then suppose a man to travell under the equinoctiall or middle lyne of the earth betwixt the two poles, making every day 15. of our British myles; It is manifest that such a Traveller should compasse the whole circumference of the earth in three yeares 345 dayes, some 20. dayes lesse than 4 yeares: As for the distance of the earth from the firmament, I dare not give you it for current: yet in the Schooles thus they shadow it, that the aires diametrical thicknesse is ten times above that of the waters; the waters diameter ten times above that of the earth: By the Aire I understand here all that vast interstice betwixt us and the Moone; which if it be true, counteth it selfe: but because

Distance of the earth from heaven.

bécause the distance betwixt the centre of the earth and the centre of the Sun is more particularly specified by our Astronomers; therefore to give you further content, thus much of it you shall understand; that if you will remarke diligently, and compare together the observations of *Ptolomeus*, *Albategnius*, and *Allacen*, you shall finde, that the aforesaid distance betwixt the centre of the earth and that of the Sun containeth the earths *Semidiameter* 1110. times: Now as I have said before, the earths *Semidiameter* being somewhat lesse then 3500. we shall take it in a number, to wit 3400. Which if you multiply by the aforesaid 1110. the product will shew you the whole distance betwixt the centre of the earth and the centre of the Sun to be 3774000. Three millions, seaven hundred seaventie foure thousand myles: likewise if from this number you substract 3400. myles for the earths *Semidiameter* from the centre to the superfice, and 18700 myles, which is the Suns halfe diameter according to the doctrine of the afore-named Astronomers, there remaineth 3751900. myles, as the distance betwixt the uppermost superfice of the earth which we tread upon, and the neereſt superfice of the Sunne, which being the chiefe and middle of the planets may conjecturally shadow forth the distance of the earth from the heavens.

The most approved opinion of the earths distance from the Sun.

METEORS.

The most
of the
different

and the centre of the Sun is more particularly spec-
ed by our Astronomers; therefore to give you
their account, this may be of use to you shall understand
that it is not a simple distance, and compared to
gether the other sides of the Sun, and the distance
and distance, you shall find, that the distance
between the centre of the Earth and the centre
of the Sun is not a simple distance, but a
distance, as I have said before, the centre of the Earth
being somewhat less than 3700. We shall take in a
number to wit 3400. Which if you multiply by the
number 110, the product will show you the whole
distance between the centre of the Earth and the centre
of the Sun to be 374000. Three millions, seven
hundred forty thousand and nines; likewise if
from this number you subtract 3400, miles, it will be the
distance between the centre of the Earth and the
centre of the Sun, which is the Sun's half diameter
according to the doctrine of the Astronomers. And
noting, that the diameter is 371900 miles, as the di-
stance between the uppermost surface of the Earth
which we tread upon, and the nearest surface of the
Sun, which being the chief and middle of the pla-
net may conjecturally shadow forth the distance
of the Earth from the heavens.

METEORS.

OF
VARIETIES
THE
SECOND BOOKE:
CONTAINING A DIS-
COURSE OF METEORS,
As of *Comets*, falling Starrs, and
other fiery impressions, &c.

Of *Winde*, *Clouds*, *Thunder*, *Haile*, *Snow*,
Raine, *Deaw*, *Earth. quakes*, with their true Na-
turall Causes and effects, &c.

Of *Rivers*, and *Fountaines*, their Springs, and
Sources, &c.

BY
DAVID PERSON of *Loughlands* in SCOTLAND
GENTLEMAN.

Et quæ non profunt singula, multa juvant.

LONDON,
Printed by RICHARD Badger, for Thomas Alcorn,
and are to be sold at his shop, in *Pauls Church-yard*
at the signe of the *Greene-Dragon*. 1635.

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As of Comets, falling Stars, &c.
other fiery appearances &c.

By J. J. COCHRAN, F.R.S.

Author of the History of the Earth, &c.

Of the Nature and Formation of the Earth, &c.

BY
DAVID HARRISON, F.R.S.

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LONDON:
Printed by R. and J. DODD, in Pall-mall.



To
**THE MOST REVE-
REND FATHER IN GOD
PATRICK,**

By the providence of God Archbi-
shop of *Glasgow*, Primate of Scot-
land, and one of his Majesties most Ho-
nourable Privy Councell, and Exchequer
in that Kingdome, &c.

(***)

My LORD.

TO whom can those two Pillars IACHIN
and BOAZ erected before Salomons Tem-
ple, bee more properly applyed then to your
Grace, who both in Church and common-
wealth have shovne your selfe to bee the li-
vely Hieroglyphick figured by them, as your Memorable
deeds in both can beare record to Posterity? for with what
vigor did your piety and zeale extend it selfe in suppress-
sing

(* 2)

sing vice and superstition in the Churches concredited to
your care, and in establishing vertue and learning both
there and elsewhere, may appeare in the peoples harmoni-
ous Concord in Religion to Gods glory, your eternall praise
and their eternall comfort; And as your Piety, so have
your Iustice, and travells beene extraordinary in settling
of the Church rents universally through the land, re-
possessing every man of his owne tithes upon most compe-
tent considerations; all which with your great gravity Mu-
nificence and other endowments fit for the accomplishment
of so venerable a Prelate, have heaped upon you both Gods
blesings, our Royall Soveraignes favour, and the peoples
love, and reverence; But least others should deeme that
adulation which the mouth of verity would even extort
from your enemies, without further commendations of
your Person, I humbly recommend this booke to your Gra-
ces Patronage, acknowledging the strong ties I have to
continue

Your Graces most obsequious servant;

D. PERSON.



OF
METEORS,
 THE
SECOND BOOKE.

CHAPTER I.

The definition of Meteors, their Matter, substance, place, and cause.

DEfine Meteors to be things, above our sight, in the ayre, as the Etymology of the word importeth. I divide them into dry and moist, according to the diversity of the matter whereof they are framed, which are dry and moist vapours and exhalations extracted from the earth and waters; and from thence elevated to the regions of the ayre, where they are fashioned; and that diversely, according either to the

Definition of
 Meteors: their
 matter, sub-
 stance and
 height of for-
 mation.

E degree

degree of the Region they are framed in, or the matter whereof they are fashioned.

The Philosophers and meere naturalists have not alike consideration of them; for Philosophers have regard to them both as they have their dependance from above, specifying time, place, and all other their circumstances: whereas the meere naturalists doe particularize none of them, but generally shew how they flow from the earth: the knowledge of stars, and of the regions of the ayre, better fitting the Philosopher then the other.

Meteors severally considered by Philosophers and naturalists.

For so it is, that, the vapors, and exhalations which the Sun extracteth out of the Seas and earth, sending them up to the regions of the ayre, are the true and originall materiall cause of these Meteors.

A comparison of these Vapors unto the body of man, chiefly to the ventricles and head.

Not of all uniformly, but severally of each one, according to the height, whereto they are elevated from the said waters and earth; and the nature of the vapour elevated: which I may not unfitly compare to the naturall body of man, whose stomacke is the centre of his fabrick, which sendeth up to the head, the moyst or flatulent humors, wherewith for the time it is affected; and receiveth backe againe either heated and consuming distillations, or refrigerated and quenching humors, wherewith to temperate and refresh the incessant motion and heat of the other noble parts by a circular motion.

Whether there be any exhalations from the lowest Region of the ayre?

Quest. I know the curiosity of more subtile spirits will move the question, whether the Sun draweth exhalations from the lowest or first region of the ayre; seeing it is humid and hot, sometime hotter, sometime colder, according as the reverberation of the Sunnes

Sunnes heat from the earth affecteth it: although I grant, that the ayre, of its owne nature, is hot; yet that hindereth not, but accidentally, it may be heated also, yea sometimes made hotter then of its nature it is. To this question I answer.

Ans. That the subtilty and rarefaction of the ayrs humidity hindereth the Sunne from exhaling of it; for although some parts of the moist ayre be grosser than others, yet the same grosser parts are more subtile then any vapor, which the Sun extracteth from the earth or waters: for not all subtile humidity is evaporable, but that of water only, as that which may more easily be apprehended by heat.

As then, the lowest and first region of the ayre about us, wherein we breath here, is hot and moist, both by nature and accident; as I was saying, by the reverberation of the sunne-beames, upon solid and combustible bodyes, and heated by the exhalation of fumes from places or things that are apt to be kindled, even so, the uppermost region is hot and dry, both by nature, and accident; and almost more, or rather by accident then by nature, *propter viciniam ignis*; albeit the supreme region must be hotter then the lower, both in respect of the propinquity of it, to the element of fire, (even as the lowest region by the neighbourhood of it to the earth oftentimes is colder than hot) as also in respect of the nearenesse of it to the heavens, which as with the light of them, they warme the lower things; So, by the rapidity and velocity of their circular course, they heate this first region also.

The lowest region of the aire is hot and moist, both by nature and accident.

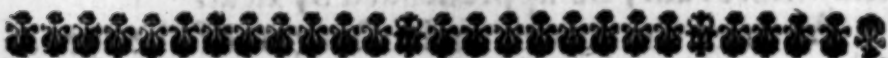
The uppermost region hot and dry.

Now as these two regions are of themselves hot, and
E a moyft,

The middle region is only cold, at least respectively.

moist, and hot and dry; so the middle Region is only cold, but drier where it is contiguous with the uppermost, and more moist where it is nigher the lowest. This great coldnesse of it, enforced together, by an *Antiperistasis* (as we say) or opposite contrarieries of heate above, and cold below.

The Ayre then being divided into these three Regions, wherewith the uppermost, as comprehended within the concavity of the fiery Element, is ever hot and dry, the lowest hot and moist, but of a weake and debill heat, which by a breathing cold may be changed; the middle Region is alwayes cold.



CHAP. 2.

Where Meteors are composed. Of Clouds, where they are fashioned, together with the solution of some questions concerning the middle Region.

In what region of the Ayre the Meteors are composed.

NO W remains to know in which of these Regions any of these Meteors are framed: and first, whether or not Clouds be generated in the middle Region of the Ayre: It is most likely, that not there, but in the lower; because in it diverse other Meteors alike in matter and forme are framed. To which, not so much cold is requisit, as to the other two; yet the nature of Clouds being considered, we shall finde them to be generated in the middle Region onely.

For, seeing Clouds are nothing else but vapours mounted, and thickned by condensed cold; then sure they

they cannot bee framed in the uppermost Region of the Ayre, because in it the Sunnes rayes are directed, lacking reflex, beside the circular and Spherick motion it hath, by vertue of the proximity of the Elementary fire, which warmeth it againe : this thickning or condensing cold cannot be in the lower region, by reason of the heate of it through the reverberation of the Suns rayes, beating upon the solid bodies of the earth, and waters : so there resteth the middle Region, in which the reflex faileth, & the vertue from above too of the direct Sunnes rayes; so that naturally it being cold, in it only these vapours must be condensed to a cloud.

What clouds are.
Clouds are fashioned in the middle region.

And whereas I was saying before that it should seeme that the Clouds are begotten in the lowest Region; in respect that in it, Waters, as Dew and Fountaines, at least their matter and forme are brought forth, that alwayes cannot hold; because that Fountaines, and Rivers, are rather bred in the concavities, and hollow places of the earth, than of it, or rather flow and have their source from the Seas.

Neither must my words be mistaken, when I say that the middle Region is naturally cold, seeing before I have set downe the Ayre, naturally to be hot and moist; for when I say that it is cold, it must bee understood, but respectively, in regard of the other two, as wanting the reflective heate of the lower Region, and the circulative heat by the *igneas* or fiery warmenesse of the other.

Now if it be objected that seeing the middle Region of the Ayre is cold, and all cold things are hea-
vie, and so consequently tend downward; what can be the reason that this middle Region falleth not

Concerning the middle region.

Solution.

thorow the lowest to its own centre of weight, which is the earth? It availeth not; for first, not all frigidities draweth or tendeth alwayes from its circumferences, to the centre, but that only which is absolutely and simply cold; as that of the Earth and Waters, and not that of the Ayre, which (as I say before) is but respectively cold; yea, albeit that the middle Region divide not the lowest in whole, yet in parts it doth; as in raine, when it falleth from the middle one upon the dissolution of a cloud.

Finally it may be said here, that clouds not onely may bee seene beneath us to inviron the tops of our lower Mountaines; for I my selfe crossing the lower Alpes, at *Genoa*, have seene them below me along the sides of the Mountaines; they likewise may be perceived to glide over the Plaines, and swimming over our Lakes and Rivers: yet that serveth not to prove, that they are generated in the lowest Region; but rather argueth the ascending of these vapours, and the gathering of them together; of which the clouds must bee coagulated and no otherwise, as that they are absolutely there framed. But this by the way.

The foggy vapours which we see like clouds skimming our lakes are but ascending to frame the cloud.

Chap.

CHAP 3.



Of falling Starres, Fleakes in the Ayre, and other such fiery Meteors.

THere be foure Elements as all know ; the Fire hot and dry, the Ayre hot and moist, the Earth dry and cold, the Waters cold and moist. Now as of the moisture of the Waters, whether in their owne Element, or on the Earths superface, are composed all watery vapours, as clouds, raine, dew, haile, snow, and hoare-frosts, &c. Even so, from the dry parts of the Earth, calefied, or made hot by the Sun-beames doe proceed fumy exhalations, whereof the fiery and burning Meteors are generated.

But so it is, that of these vaporious exhalations, whereof all the ignite and fiery Meteors or impressions are composed, all are not framed alike; for according to the diversity of the dispositions of their matter they are either round or long, or more long than round, or more round than long; for if by the efficient and materiall causes, which are the Sunne-beames exhaling these fumous evaporations from the driest part of the Earth, these spumeous exhalations are such as are combustible and capable to bee kindled (if it be of a like length and breadth :) then in that case, it shall be seene to burne in the uppermost Region of the Ayre like a blazing fire of straw : if it bee longer than broad, then is it taken for those long falling Stars, which by the Meteorologists are called

The matter
and forme of
fiery Meteors
from whence
they proceed.

What are our
falling-stars.

Dall. If otherwayes broader than long, then are they called fiery inflammations, which seeme to reele in the Ayre, as it were, and to shoot hither and thither. And because sometimes these exhalations (although dry) have some coldnesse in them; therefore the ejaculation of that cold matter, maketh the Meteor to seeme by that extrusion to fall; as being in labour to expell it; whence more properly are our falling Stars, which Stars at some times seeme to fall aside, at other times strait downe, or upward, according as their matter is for the time either disposed or placed.

What maketh
them fall down
seeing they are
light?

Solution.

Of thunner,
the matter
whereof, and
place where.

And if it be objected how contrary to their nature can they descend or fall downe, their matter being light and not ponderous? I told before, that that cometh by expulsion, and by way of projection; for confirmation whereof, may be added the experience we have of Thunder, whose bolts and claps light at times, even at our feet; otherwhiles what in our houses, beating downe Pinacles and Steeples, the tops of Turrets and the like, although it be both light and dry; and the reason is, That Thunder being generated in the middle Region of the Ayre, not by exustion of any kindled hot matter, but rather by a separation of an expelling cold; meane while this cold thickning and coagulating it selfe together with violence, in a manner detrudeth the hot matter, which with it was thicher drawn up, and maketh such a noise and terrible din, the time of that expulsion, that not only the Ayre seemeth to bee rent asunder, but the very Earth also appeareth to tremble at its violence.

Iust

Iust so, as the matter of the falling Stars is placed, they fall either straight down, aside, or upward, as before I noted. Even so is it with the Thunder.

Now, as those vapors, thickned in the ayre, doe produce the afore-said effects; so shall it not bee thought amisse, to say, that the same ayre, being thickned, with their vapors, but not condensed in a cloud, by susception of light, but chiefly from the Suns rayes opposite to it either by night or day, but chiefly by night, become fiery coloured, and looke as burning; the same vapors stirring to, and fro, and being some-way thickned, by refraction of light, doe assume unto themselves variable, and diverse colours; and those fires in effect are the same which vulgarly are called pretty dancers: and by reason that the material cause of such impressions is swift, and soone vanisheth, therefore they abide and remaine the shorter time; for such phantasmes not being come to the full perfection of other Meteors, (as seldome they are seene to doe) so their abode, and being is but short, and inconstant, they being composed but of hot, and dry exhalations, from chalky, rocky, sandy and sulphureous parts of the earth, there being a mixture of moisture with them.

The matter & forme of these which we call pretty Dancers

And to the effect, that this may be somewhat better cleared, we must consider: That foure sorts of vapors are exhaled, or drawne up out of the earth by vertue of the Sunnes rayes, beside the smoake of our fires, which ascending to the ayre also augments these fiery Meteors.

Fower sorts of vapors ascend from the earth and waters which are the nearest matter of all Meteors.

First vapors hot and dry, not having so much humidity in them, as may be able to overcome them; but

but rather such, as may make this dry vapor to be continued, for no earthly thing can continue without moisture.

Secondly, cold and dry, which altogether are of the earth's nature, virtually cold, albeit formally all vapors are hot.

The third are those vapours which are hot and moist, where humidity predominateth over the heat.

The fourth kind of vapors which ascend, are cold and moist, in which absolutely watry moistnesse beareth rule, and this vapor virtually is called cold. These foure sorts of vapors then are the neereſt matter of all our meteors.

The first whereof, *viz*, hot and dry vapors, doe ascend through the ayre quickly, even to the concavity of the firy and ignean element; where being enflamed and enkindled, it becommeth the right generation and propagator of our fiery Meteors: whereas, the second, being hot, and moist, doth not ascend so high; and because it is easily resolved, it commeth to be ayre.

Ayre what.

The other two cold and dry, and cold and moist vapors are elevated aloft also, but no farther then to the colder parts, where they are thickned and coagulated together, by the invironing cold; but so, as cold and moist are converted to raine; and the other cold and dry to wind, or this falls downe with the pluvius or rainy vapour. This being so, we may see, that there are foure kindes of vapors and exhalations, conformable to the foure elements which make up the matter of these Meteors; in such sort, that as there are
hot,

Raine what.
wind.

hot, and dry exhalations, and cold and dry, even so there are hot vapours and cold and humid ones also.

Since then, you know the matter of wind, raine, falling stars and inflammations in the ayre, let us heare what can bee objected: One demands, what is the cause that the falling stars or other descending flames or flashes make no such noyse as the thunder doth, seeing their matter and manner of composing is almost alike.

Quest.

What is the cause, that the falling Stars make no noyse as the Thunder seeing one matter is common to both.

Ans. Because the cloud which throweth away and expelleth them, invironeth not them in her belly, as their clouds doe, in which the matter of the thunder is; for the thunder bursting thorough the cloud occasioneth the clappe.

Quest. Now if it be asked, what meane these fiery inflammations, which at some times in the night are scene, either amongst our horse feet when we ryde, or about their maines, or sometimes like the glaunce of a candle light before, a little above or about us? The answer is, that these dry exhalations, as diverse other things, are of severall degrees; some elevated to the highest region, others to the middle region, and these, which ascend no higher then this low region where we inhabit, being composed of a more oleagenous, or oyley substance, doe inflame sooner, than these of the middle region doe, as being invironed with cold.

What meaneth these fires wee see by night before us or by us when we ride at some times.

Or if it be asked? Why see we not such inflammations in the day time as in the night? No question but that then they are, and more frequent then in the night, but the greater light obfuscateth the lesser.

Why are they not scene in the day time?

Or if it be asked; What meane the rents and clefts (as it were) which we see in the firmament, as if it were

were

were opened and hollowed in some places? That is nothing else, but the vapors and exhalations, carryed up to the ayre, which are condensed and thickned together; where, by accident, if in the midst of this condensation, any part be more subtile, or thinner then the extremities are; that thinnest part, appearing black, and the two extremities coloured, maketh people believe that it is an open gappe, which indeed is not.

What be these
complaining
and laugh-
ing which
sometimes are
heard in the
ayre?

Quest. As to that question; by what cause it happeneth, that moanings, mournfull voyces, and sometimes also laughings are heard in the ayre? I thinke the Meteorologians answer not so fully satisfactorie as theirs, who treat of spirits, whom I may well call Physionosticks: for the Albertists, upon this place, say, that the cause is, the multitude of exhalations, extracted out of graves and other Subterranean places, pressing upward, thorough places not proportionable for them; and being of themselves, of a resolute nature, doe make noyses, not unlike to those of men; which in my conceit is ridiculous: and yet such is their glosse upon the latine Text, *De die igitur sol prohibet.*

They are Ae-
reall spirits.

Ans. But I incline rather to their opinion, who, speaking of the nature of spirits, say, that these Cackinnations or laughings, and weeping voyces, which we heare, are rather Aereall spirits; which is handled more largely in my title of spirits, where you may find all their orders and natures.

Now because the matter of comets, is of greatest moment, amongst all the Meteors; I hasten to them.



CHAP. 4.

Of Comets, their matter, forme, nature, and what way they portend evill to come.

COMETS, being of the number of Ignean and fiery Meteors; No question, they are composed of a like matter; the difference being in the quantity of that matter more or lesse, to wit, dry, clammie and hot exhalations, in their framing being condensed, and by reason of the motion of the superior bodyes, in the fiery element beginning to kindle, doe make these comets; and thus they differ from the fiery Dragons, and falling sttars; for these Meteors, once kindled by way of exustion, and extrusion, or projection, are throwne downe suddenly, and so vanish; where, on the other side, the dry and hot exhalations, whereof Thunder is composed by way of detrusion, (the cloud renting asunder, in whose body it was enclosed) doe presently vanish, as lightnings (their forerunners) doe.

Now where the nature of comets must be such; that neither the fry kindling of them may soone consume it, by the greatnesse and violence of it; neither must their matter be so weake and thinne, that the fire may on a sudden overcome it, but such as may endure at least for a little season, both with the quality of the fire, and the disposition of the matter condensed and thickned; and yet so as the exustion or kindling of the matter and condensed exhalation, beginning at
the

The nature & forme of comets.

The reason of
their long
hayre or beard.

end of it may ascend upward, til it consume the whole extent of its rayes and beames upon the matter combustible, in forme of a beard, or long discheveld lock of haire, continuing so for a time; from whence *Cometa à Coma*, hayre, hath its denomination.

Sometimes
they are round.

Now the forme and shape of these exhalations, is not ever after a like proportion or fashion, that is, alwayes long and broad; so that the one end being kindled, the other remaineth but enlightened, like a beard, from whence they are called *Crinita Stella*, or *Barbata Cometa*, bearded Comets. For sometimes their figure wil be Spherick and round; so that the fire taking these Spherick exhalations in the middest maketh the blazing beames which extend from the centre to the circumferences, to looke like long hayre circled about a face or head.

Halo s. i. area.
What are the
Circles about
the Moone,
which we call
broughes?

Neither must it be thought that this haire or invironing beames are like to these which before a storme we see incompassing the Sunne, but more frequently the Moone, which *Aristotle* calleth *Hala & Halones*; for these Circles by us called broughes, are a world of way remote from the bodies of the Sunne and Moone, and in effect, are but in the troubled Ayre, with abundance of exhalations and vapours, thorow which, the Sunne and Moones rayes, making way to themselves, do fashion these circles about them there. Whereas these circles or long beards of the Comets, are directly under, yea, sometime above the concave of the Moone; and thence to the first Region of the Ayre they are conveyed with the Comets of that same matter of exhalation, and nature; although our moderne Astronomers, now averting this *Aristotelian* opinion

opinion, have found out some Comets place to bee above the Moone.

This being briefly spoken of the matter and forme of Comets, it may be asked what course they have? What course the Comets observe. to which I answer; first, that the motion of Comets is common with that naturall course of the world; for either it is from the Orient to the Occident, or from the West to the East: at times most frequently it declineth to the South, and at other times to the North; now high, then low, now seeming neere to the Earth, then remote from it.

And if it be said, how can Comets have so many different courses, seeing a simple body can have no more but one motion of it selfe? To this I say, that as the Sphere of fire and the supreme Region of the Ayre, by the heavenly motions are wheeled about from the Orient to the Occident; thus the Comets exist above the first Region, and so naturally with it they should keepe the same course: in respect that conformably a thing placed, must turne with the place, in which it existeth. So if this first Region by the rapidity of the Heavens be moved; much more should Comets, they being neerer to it than the first Region. Answer for the diverse courses of Comets.

Now albeit the Heaven, Fire, and Ayre move in a circular motion, yet they move not all alike, for by certaine degrees the course of the one is swifter than the other; so that the Ayre as neere to the Earth, is slower than the other two. By this subdeficiency then, the Ayre, and they within it, seemes but to goe about frō Occident to Orient of its own proper motion, having regard to the swiftnesse and velocity of the

the superior course. And whereas I say, that they move high and low, to and fro; that is to be understood in so far that every thing perfectible striveth to attaine to its owne perfection; which consisteth in the approximation and neere attaining and touching of the generant, which chiefly beareth rule in the place, whereat they aime or tend; whether that thing engendred bee a Star, or any other celestiall vertue, whereunto this subdeficient striveth to attaine.

What maketh
the Comets
commonly
move from the
South to the
North.

Now the reason wherefore most commonly Comets doe reach, either to the South, or North, is to be attributed to the speciall influence of some other Star drawing them thitherward; as the Loadstone maketh Iron turne towards it: and whereas sometimes they appeare low and neere the Earth; at other times farther remote from it: that must be appropriated either to the inflammation of the Comets matter, either at the neerer or farther end, or else to the height, or lownesse of the Region, above which it is elevated: for none of the three Regions, but have in them their owne degrees and stations, some parts in them being higher than others are.

The place of
their abode
commonly.

The place of their appearing is most frequently in the Northerne Climates; and that most often under *Via lactea*, which is that white coloured draught called the milkey way in the firmament, which may be perceived by night, reaching in a manner from East to West. The time of their abode againe is but at shortest seven or eight dayes; albeit I reade of some that blazed halfe a yeare; but such have seldome happened: neverthelesse the shortnesse or length of their abode, is to bee imputed

imputed to the bignesse or scantnesse of their matter.

Now rests to know, whether or not these Comets may portend or prognosticate bad or infortunate events of things here below, and whether over particular persons or Countries in generall? To this the Philosophers (who will have all things, either above or below, to be and exist by naturall reasons, and admit no prodigies or things beyond nature) make answer that Comets are but meere naturall things, no way fore shewing evils to come.

Whether or not they can portend evill to come.

The Philosophers deny it, admitting them but as naturall things.

Because (say they) when *Jupiter* falls to bee in the signe of *Pisces*, or in the signe of *Cancer*, if then the Comets appeare, it foretokeneth aboundance, and wealth, as in the dayes of *Iulius Caesar*, there was one seene; which neverthelesse had no evill ensuing upon it; as it may bee seene in *Albertus* his Commentary upon *Aristotles* Text in the Meteors, latinized, *Ejus autem quod est.*

The Philosophicall reasons why not.

Besides this say they, when Comets are seene, then these evils which follow them, and which they portend should fall forth through all or very many parts of the Earth, seeing they are seene by all, or most: the contrary whereof is knowne.

Besides, that burning Lances or Speares which now and then also are seene in the Ayre; and other fiery impressions, which are of that same matter with these Comets, should foretell evils to happen, as well as they which are not.

But above all, seeing it is oftenest thought, that Comets either foretoken great winds, or raines; none of which can be, say they: not winds, because the matter whereof the winds becometh to be, which are dry

Other of their reasons why they can portend no evill to come.

F

exhalations

exhalations, are converted towards the framing of the same Comets themselves.

Other reasons
of theirs.

Not raine; for no one thing can be a signe of two opposite contrarieties. Thus seeing Comets portend drouth, they cannot likewise preaugurate inundations, and overflowings; finally, much lesse the death of Princes and Monarchs no more than of other private men; seeing the same constellation and ascendent may be equall, and have regard to meane men as well as to them, in a like distance.

Which reasons, with diverse moe albeit at first view, they may seeme forcible; yet being better considered their insufficiency will soone appeare: for none of the naturall Philosophers but doe acknowledge their Prognostications, for some one thing or other; albeit the Astrologicall Philosopher particularizeth them more punctually.

The contrary
is seene by ex-
perience.

And thus they say, that a Comet circumbeamed about with that which they call long hayre (to say so) invironing it as we see, about the Sunne, Moone and Starres; before a storme and great tempest, doth signifie and portend great debording of waters; whereas if it bee but radiant in one side, that is a sure signe of terrible and destructive droughth, and consequently of famine and scarcity; becaule without humidity and warmenesse corne and fruits cannot grow.

Now as high winds move and stirre the Seas with other waters; so from that commotion ariseth raine and boisterous showers; so that appeare how they will, yet they ever portend some one evill or other.

As for death of Princes and change of estates fore-
shewne by them, experience of former Ages can qual-
lifie;

life; and by late miserable prooffe it may be understood by that blazing Star, which appeared in the yeare 1618. I being at that time in *Florence*, where an *Italian* Astronomer, upon the third Bridge, drawing in his Table-booke the height and aspect of it, was overheard by us who gazed on him, to cry although with a low voice, *Va Germania*, Woe unto *Germany*: and who so is, but never so little acquainted with the histories of diverse Nations, shall soone perceive in them what lamentable accidents have ensued after extraordinary deluges, and overflowings of waters, and intollerable droughths; but more especially after the appearing of Comets, what dreadfull effects according to their affections: so we require, that those *Recusants* would with the Philosopher, who denied that the fire was hot, but put their finger into it to try the truth of his assertion.

Lamentable
accidents
which have
followed after
the appearing
of Comets.

Neither do our Astronomicall Philosophers want their owne grounds, wherein they settle the warrant of change of estates, after the apparitions of these Comets; and this for one.

That the exhalations of hot and dry vapours from the Earth, whereof these Comets are made, betoken a bilious and wrathfull, sudden and irefull disposition of the in-dwellers of these Countries; for the same ayre which they attract, and emit, doth someway affect them, and this ayre is filled with these exhalations, resolved by the heat of the incumbing Sun; so no question but this same way it moveth their bodies and minds to feare fiery and sudden revolts, fightings, seditions, and uproares.

The reasons
which our
Astronomicall
Philosophers
give, that Co-
mets may por-
tend change of
States,

Comets appeared in England before their Coun-

Examples of
Comets appearing before de-
solation.

they was conquered by the *Normans*: and thereafter another, when they subdued *France*. What more remarkable one then that which appeared above *Hierusalem*, before its sacking and captivity? And againe, what desolation befell all *Italy*, almost after that prodigious debording of waters which fell from the *Alpes* without any former raine? *Charles* the 8th. of *France* his entering thereafter, and the disastrous chances that followed thereupon can testifie: all which our and their stories can record, besides many others, as *Sabellicus* in the penult. booke of his last *Aeneids* doth intimate.

Neither yet may I be induced to beleieve, that the Starre whereof *Tichobray*, that famous renowned and noble Astronomer maketh mention, which is yet seen and was affirmed to be (though the Prince now bee dead) most fitly appropriated to the victorious, wise, and fortunate *Gustavus* King of *Sueden*, to have beene no other than a Comet, what ever reasons he alledgeth to the contrary. Albeit such remarkable Starres are rather observed to appeare at the death of great men and Kings, than at their birth. Neither must we instance the example of the Starre, which was observed by the wise men of the East, at the birth of our Lord and Saviour at *Nazareth*; such extraordinaries should be admired, not inferred to exemplific things.

Answer to the
former objections.

For answer to this, that the death of common people may as well happen under these Comets, as that of Princes: there is no question but that the supereminency of great persons and States making them the more remarkable, maketh their death also more perspicuously to be notified.

And

And as in the Title of curiosities I have shewne, that not ever the most curious questions of Arts and Sciences are the most profitable; Even so in this I allow not of *Hali* the Jew his commentary, upon the centiloquy of *Ptolomee*; where, referring the death of Princes to comets he thus saith.

Quod si apparuerit cometa Domino istius regni exente in Oriente, significat mortem Regis, vel principis; si autem Dominus istius regni fuerit in Occidente, significat aliquem de regno suo interfecturum Regem; I over-slip the interpretation of these words, least the divulging of them might more harme than profit. Alwayes leaving Philosophicall alterations, thus much by naturall experience we may resolve upon; that they never appeare, but some bad event followeth thereon, either to the countrey over which it blazeth, or to which it aspecteth; or else to that countrey over which ruleth a starre which that comets tayle tendeth towards or followeth; though much rather to that countrey which it hath aspect unto: not by vertue of its influence, but by reason of the superabundancie of maligne, dry, and hot exhalations regorging and dispersing themselves over it.

Conclusion of
comets with a
particular ob-
servation.



CHAP 5.

Of Raine, Dew, hoare-frost and their cause.

AS hot and dry exhalations are the matter and cause of Meteors in the upper region of the aire, of which before: Even so, cold and moist vapors are the

The first mat-
ter of raine.

The way how
raine falleth
downe.

The matter &
manner how
dew is engen-
dred.

the causes of these; after this manner; vapors eleva-
ted up into the ayre, by force of the Sunnes beames;
and being separated from the heat which accompani-
ed them; either, by that heat's ascending higher, and
leaving the grosser vapors; or the subtillest of that
heat being extinguisht by the grossenes, & abundance
of cold and moist vapors, which mounted up with it
in the ayre: or else by the coldnesse of the place, the
middle region of the ayre. These grosser vapors I say
segregated from that heat, which accompanied it, and
being thickned and carried about in the ayre for a
time, fall back againe to the earth; but being first
coagulated in a cloud, which dissolving, falleth down
to the place from whence it ascended: so that by a cir-
cular motion first the waters resolving in vapors, the
vapors thickning in a cloud, then that dissolving back
againe into waters, imitateth in a manner the circular
motion of the Sunne, by whose approximation as
these vapors are elevated, even so by his elongation
(if I may say so) they doe fall backe againe.

Now, as this is the generall cause of these moyst
Meteors, so is it the particular cause of the falling of
Rayne: for Raine being a watery vapor, carryed up
by heat into the Ayre, and there that heat leaving it,
resolveth and falleth downe againe in great or lesser
showers, according to its quantity.

Dew and Hoare-frost are not so generated, for
why? When there is not such quantity of vapors ele-
vated in the day time (through want of heat to draw
them up, or through great drowth upon the earth,) they
are not carried high: in hotter countreys they
fall downe againe before the day be spent, and that by
them

them is called *Serene*, as in France particularly : So when these elevated vapors are thickned in waters, without either so much heat as may dry them up, or so much cold as to congeale them ; then I say the dew appeareth.

What is that which in France we call *Serene*.

Now the Hoar-frost happeneth otherwise ; as, when the like exhaled vapours are congealed, before they be condensed ; whereby you may see that dew falleth in temperate times and places, whereas Hoare-frosts fall in Winter and in the colder parts of the earth : and the reason may be alleadged, that, seeing vapors are hotter than water ; in respect of the concomitating heat, whereby they are carried up ; no question, but more cold is required, for the congelation of vapors, then of waters : and so if in cold seasons, and places, waters congeale, and harden, much more may we say of vapors congealable into Hoare-frost. Thus we have touched the materiall and efficient causes of dew and Hoare-frost ; so it shall not be amisse to shew that the time when the Sun ingendreth these Meteors in the ayre, by the drawing up of these vapors, from out the earth and waters, must be, when the lowest region of the ayre is, calme, serene and cleare, without wind raine, or cooling clouds ; for they being mounted thither may either hinder their ascending or condensation and thickning ; as also the stirring winds would hinder their condensation, or at least their congregation or gathering together.

The matter & manner how Hoare-frosts are fashioned.

Now that both dew and Hoare-frost are begotten of vapors not carryed high in the ayre, by this it may be knowne ; because we see little Hoare-frost or dew, in the higher mountaines, where it seemeth

The place where dew and hoare-frost are framed.

likeliest, they are made and doe recide in regard of the cold there; which is so much the more probable in this, that the heat, which elevateth these vapors from low and Marshy places, carrying (as you would say) a burden heavier then their hability can comport with, leaveth them ere they can ascend any higher.

Besides that, we may say, that the second region of the ayre, being higher than these mountaines, and carryed about; and in a manner drawne after the circular wheeling about of the heavens, dissolveth these vapors by its motion; and by this meanes maketh the dew and Hoare-frost, for so I expound *Pruina*. Notwithstanding this, a greater motion is required, to disgregate and sunder apart heavy and many vapors, then few and light ones; now seeing the matter of Snow, and Raine is greater and containeth a great many more vapors then the matter of dew and Hoare-frost: Therefore it is, that in exceeding high Mountaines, neither raine, dew, nor Hoare-frost fall; because of the violent motion and great flux of the ayre there: for that matter is rather even wheeled about with that violent motion, whereas in the lower Mountaines againe, because of the lesser flux and motion of the ayre snow and raine falls, but not deaw nor Hoare-frosts.

Some more
good observa-
tions of dew
and Hoar-frost

To end this part in a word then, I say, That dew and Hoare-frost have a like matter common to both, *viz.* moyst vapours exhaled from the earth and waters, but not highly elevated in the ayre; and (except in quantity) they differ not, but onely in this, that dew is fashioned of moderate cold, the other is begotten by a more violent.

Chap.



CHAP 6.

Of Snow : its cause, matter and nature.

THe matter of Snow, is a cloud, composed of an aereall substance, whereby it may be made some way hot; and of a terrestriall and earthly matter, whereby when it is dissolved, it leaveth some muddy substance behind it; but the most speciall matter of it is of the vapors exhaled from the waters dispersed over the earth. Their place, is in the middle region where violent colds are; which excessive cold must not be thought their generation only, but then, when that cold is dispersed through the whole ayre; for then this cold is not so sharpe and piercing, as that cold is, which, by the dispersed heat in the ayre, is reenforced and crowded into one place. Now because such colds are not spread abroad through the whole ayre, but at certaine times, as in winter, in the end of Autumne, and in the beginning of the Spring; therefore it is that in winter in the taylor of Autumne or in the beginning of the Spring, Snow falleth (at least then) most frequently. And because the Northerly Climats are coldest and farthest remote from the hot Zone, as there where the Sunne beames hath least reflex;

What Snow is?

Much Snow in the Northerne climats, and Why?

--- *Quod sol obliqua non nisi luce videt.*

Therefore it is also, that in these places snow is most usually seene.

Now if it be said, how can it be, that the snowy cloud

Difference be-
twixt the
Snowy cloud
and the rainy
one.

cloud must be of a hot ayrie disposition, seeing the other two ingredients are earthly and waterish vapors which naturally are cold, for by this I should include contrarieties in one subject? To which I answer; that there are no absurdities in that; for in this case, the one is as ingredient, the other as egredient, the one over-comming, the other remitting something of its dignity: for as the cold holdeth together this snowy cloud, till it dissolve into water; so, before this cloud begin to dissolve into snow, we find the ayre which before was marvailous cold, during the time of the congealing of this cloud, to wax somewhat hotter by reason of the aery heat, which leaveth the cloud and disperseth it selfe through the ayre. From whence likewise we may gather the reasons why the snowy cloud, before it dissolve in the ayre, is cleare, and cleareth the earth also: Whereas the rainy clouds doe both dimme the sky and earth, & are exceeding cold immediately before the rayne fall downe? That is, because the rainy cloud, hath nothing but grosse and heavy earth and wattrish vapors in it; whereas the snowy one, hath besides them, the ayre inclosed, which being by nature warme, and then being thrust out of the cloud by the predominancie of the other two, cleareth and warmeth both.

Chap.



CHAP. 7.

Of Windes, their true cause, matter and nature, &c.

IN the former part of this treatise, we have heard that there are two sorts of exhalations, whereof all Meteors above us, in the Ayre, are composed: one of them moist, called vapours; the other dry, called fumes or smoke; not that any of these are so either wholly dry or moist, or that they have no mixture of others, for that is not: but that the predominancy of the one above the other, in the compound, maketh the denomination.

Now as the heat of the Sun, extracting these two from the earth and waters is their efficient cause, so they againe are the materiall causes of the Meteors made up by them, *viz.* vapours, the causes of raine, haile, snow, dew, clouds and so forth. As the dry and fumous exhalations are the causes of winde in particular, as also of the hot Meteors above mentioned. Hot and dry exhalations then are matter and causes of the wind; and as they are elevated in the Ayre by the force of the Sunne; so no question but from that same Ayre, the winds begin to blow, and not from the Earth first; which in this may be discerned; because that the highest Mountaines (I meane, if they exceed not the first Region) Towres, Trees, Steeples, and so forth, are more agitated with winds, then the lower and baser are, as being neerer the ayre.

The matter
and cause of
winde.

Ferunt summos fulmina montes.

Sapius ventis agitur ingens

Pinus-----

And

And the reason is, because straining to mount aloft conformable to their nature, they are reverberated againe by the middle region, their opposit (being cold and moist) to their hot and dry nature.

The beginning of wind is but small, but it encreaseth in blowing.

Now as the beginnings and first springs of Rivers are small, but by corrivation of other lesser ones they increase: Even so the first beginnings and principalls of windes are commenced but with few exhalations; no question but their increment floweth from the adunion and combination of more exhalations; Whence it is, that some yeares are more windy and some seasons too, then others; and commonly the dryest Summers maketh the windiest and most tempestuous winters.

A place of Scripture concerning Winds solved.

It is said in Scripture, that the wind bloweth where it pleaseth, and that none knoweth, either whence it commeth or whither it goeth. And it is truth indeed to speake particularly, we feele it and find it, we know it evanish away into the many vast and spacious inturnings of the ayre; but from what particular place it floweth, we know not well: for as they are small in their principalls, so no doubt, but they receive augmentations in their progresse. Here then it may be inferred, that winds and raine are not procreated of the selfe same matter, as some foolishly doe maintaine; which by this only may bee evidently confuted, that often times the windes are abated by raine; and commonly after raine we have windes: The first for this naturall reason, because that violence of winds blowing clouds together, and the invironing cold condensing and thickning them together, makes them dissolve into water.

What maketh raine commonly follow windes.

The

The other is because of waters or raine falling from the clouds, by which meanes the Ayre is warmed, and consequently the Earth; which maketh it yeeld aboundance of hot exhalations for the Sunnes rayes to transport upward to the Ayre, wherewith wind is framed againe.

And what after raine.

And if it be objected, that exhalations are common causes of winds, and yet of the same winds, some are cold, as the North, and East, whereas the Southerly and Westerly are commonly hotter? To this may be answered, that the exhalations themselves are not the occasion of that, but the disposition of the Climats from whence they flow; the Suns heat never approaching the North Climat, but as farre off, and obliquely, or side-ways; occasioning the cold of it, and consequently of the winds blowne from thence.

What maketh some windes cold, other hot seeing one matter is common to both.

Whereas more perpendicularly it glanceth on the other Meridian and Western parts; by which means, as the Earth is warmed, so are the winds.

And if it be asked, why in the height of Summer (the Sun being in *Cancer*) that then are fewest and lowest winds, as in the extremity and cold of Winter there are few likewise, as by experience may be seene:

To that may be answered, That as in all things extremities are vicious, even so in this matter; for great heat and drought in *June, Iuly, and August*, doe keepe back the winds and their matter, as extremity of cold doth in *December and January*.

What maketh that in the heat of Summer there are fewest winds, seeing then there should be most.

The Earth in that time of Summer, being burnd up with scorching heate, hindereth the winds to rise; because the earth then is burningly dry without any mixture of moistnesse; out of which drought of the earth, without

without some moistnesse no fumes can be exhaled.

So the Ayre clogged with cold, thick, heavie, and lumpish clouds of raine and waters, holdeth (as it were) the winds within their Precinct; hindring them to blow then, till the Ayre be disburdened of that load, and doe give way to the winds to sport themselves in the spring, recompensing their long captivity with licentious unbridled blasts.

The way how
the wind
bloweth.

Or to know how the wind bloweth is this: First, the exhalations whereof it is composed, are carried from the Earth, high up to the middle Region of the Ayre, but so, that when it is there, it is encountered and repercussed, tossed and moved with cold and condensed Ayre; finally it is put aside, from whence againe by violence it is throwne downe by the cold predominating in that Region, so it striketh upon this lower Region of the aire, in the descent of it; not right and diametrically downe, but slantingly; which ayre againe beating the Earth, by the superiour impulsion, and the earths repelling it upward or back againe, maketh it (following the round circumference of the Ayre) to blow about, filling it with its noise.

As for the number of the winds, what Countries be subject to such or such winds, what maketh the Northerly winds to blow dry, the Southerly moist; I refer the first to Sea-men, whose experience is surer than our contemplation: the other are soone solved by a good Naturalist; for the Sunne shining upon the South Countries more kindlie and hotter than upon the North, maketh the winds conforme to the Ayre of the Countries, hotter there, than in the North, and moister.

Chap.



CHAP. 8.

Of Earthquakes, their cause and nature.

THIS question dependeth upon the knowledge of the former; for the nature and matter of winds being well understood will cleere this the sooner. I formerly said then that cold and dry exhalations, by the force of the Sun elevated up in the Ayre, and from thence by predominating cold beaten aside, and from that through the Ayre downward to the Earth back againe whirling upon the face of it, and round about through this lowest Region, are the matter and nature of the winds; which cold and dry exhalations, I say, are the matter of these winds, which often times so lowdly blow upon the superface of the Earth; that not onely Ships on the Seas, Trees in the Woods are overturned by their violence; but likewise high Steeples and Towers are made to shake and tremble in such sort, that even Bels have beene blowne out of the one, the roose of the other uncovered; our fruits and cornes beaten downe to the terror and amazement of the beholders.

Again, the way how the wind bloweth.

Even so dry and cold exhalations, but these more grosse, and not so Elementary as the first, enclosed within the bowels and concavities of the Earth, (for Nature hath no vacuity) and there converted into winds, doe struggle and strive as it were, to burst up through this earth to attaine to its owne right place, which is upwards; and that is the cause of this trembling

The matter and forme of Earthquakes.

bling and motion of the Earth which we call Earthquakes.

What makes
the Southerne
countries most
subject to these
earthquakes.

And because the Southerne Countries are hotter than the Northerne, in respect of the Suns approach to them, I meane in its perpendicular beholding of them, they (I say) are consequently more apt to bee enflamed, and so to be concaved and wasted within; yea, and to be more capable of the engendring and reception of these exhalations and winds, and their effects: therefore it is, that these Countries are more subject to the motions and tremblings of the earth (whereof their particular Histories afford us testimonies enough) than the more Northerly are; for they having grosser and lesse matter evaporated from them by the Sunnes heat, doe admit lesse concavities, and so fewer exhalations: so then, both winds and Earthquakes are of one selfesame matter and subject, *viz.* of cold and dry exhalations, wherof they are framed; and they differ onely in this; That the exhalations whereof the winds are, doe rise more purified, of the superficie of the earth, and as we say in Schooles, *Ex Elemento superiori*; whereas the other, more grosser are from below, *Et ex Elemento inferiori*, so that both in matter and motion they doe agree.

The odds be-
twene wind
& earthquakes

A very fit
comparison.

Neither is this called in question by *Aristotle*, handling the same matter, *Lib. 3. Meteor.* Where his Commentator *Albertus Colonienfis* compareth this motion of the Earth by the power of these inclosed vapours in the bowels and cavernes of it, to the motions and tremblings of our pulse, by the *Systole* and *Diastole* of our spirits, in and above our hearts, and so within the cavity or hollownesse of our bodie.

And

And yet, not content with this comparison, he insisteth in the duration and continuance of the Earths motion, saying, that even as the tremblings where-with our bodies are agitated (during the fits of a Feaver) doe continue so long as the faulty and peccant humour reigneth in our veines, and accordingly diminisheth its proportion, as the matter occasioning the feaver impaireth: even so it is with this trembling of the earth, having respect to the multitude of vapours and to their declining; for the more these vapours are, the Earthquake lasteth the longer, and is more violent; but when they spend and decline, its violence and continuance is remitted.

As our bodies are stirred with a hot ague, even so the earth with an inclosed wind.

I know now the Philosopher and Naturallist (who admit nothing done in nature, to bee otherwise than by naturall meanes) will admit nothing beyond the reach of Nature when they are posed.

How is it then that commonly after Earthquakes, Plagues, Pestilences, and death of Bestiall doe ensue? To this they answer, That the exhalations which causeth the Earths motion, having burst up through the Earth, infecteth our Ayre with the infective breath of it, which it contracteth when it was incarcerated within the bowels and wast places of the said Earth?

A remarkable question.

Likewise they ascribe some such or not farre different reasons in their owne degree, to the cause of evils which usually (I wil not say ever) befall after blazing Comets, w^{ch} although in effect they have their owne probabilities; yet they should not deprive our great Creator from the supernaturall working thereof, who by such unusual and terrible *Synopses* of nature, would even foretell, and have mortall men, (whom

Solutions both Philosophicall and Theologicall.

these prodigies admonish) forewarned of some effects of his wrath to ensue; to the effect, that if they will amend, and turne to their God by humiliation, and repentance, they may avert that evill threatned, and prevent his judgements.



CHAP. 9.

Of Thunder, Lightning, Haile and certaine other secrets of Nature, with their solution.

AND first concerning Thunder. *Quest.* What can bee the causes of the lightning, and fire-fleakes, which in Latine are termed *Fulgura*, & *coruscationes*, either in the clouds themselves, from whence Thunder proceeds, or wavering in the ayre? Whether or no the exhalations, inclosed within the cloud from whence they doe proceede, be the cause, and occasion, both of the Thunder it selfe, it's sound, and of the coruscation and lightning also?

Ans. Yea; but diversly, and by it's owne course; for first by the agitation, and motion of it, within the cloud, it causeth the sound after this manner: The dry exhalation, (whereof this sound, thunder it selfe and lightnings are generated) ascending upward, in the vapour, to the middle region of the aire, is engrossed in a cloud, through the coldnesse of the place: so it is compacted, and this exhalation coarcted within the belly of that thickned and condensed matter: which dry, or firey exhalation, thus inclosed, (by *Anisiperistasis* or contrariety) by the environing cold, in the

What is the
matter of
lightnings.

the outward body of the cloud, striveth to get out, and make way for it selfe; at last, with much reluctance, overcoming the environing cold, maketh that hideous and horrible noyse, wherewith here on earth wee are so terrified, that sometimes Women are strooke in such feare by it, that they part with child; So by that same agitation it kindleth too, being of a combustibile substance, *viz.* of a dry, terrestriall, and inflamable matter; which, once kindled by *Antiperistasis*, expelleth it selfe, with violence, through that cold thickned cloud: but first in, and about the cloud it maketh these flashes and coruscations spoken of before: so in lightnings, it disperseth it selfe, here, and there through the aire, both clearing the cloud above, and the aire beneath.

The right cause of the noyse of thunder after the lightning.

Now if it be asked; What is the cause, why we see sooner the lightning then we heare the thunder clap? That is because our sight is both nobler, and the eye is sooner perceptive of its object, then our eare; as being the more active part and priore to our hearing: beside the visible species are more subtile, and lesse corporeal then the audible species, this being reall, the former intentionall, as the skilfull in Opticks know: and this is the reason why likewise we see the flash, ere we heare the noyse of discharged gunnes.

Why we see the lightning before wee heare the noyse.

Question. Again, being asked, why fire, being naturally light, doth not rather ascend then descend?

Ans. (To that as before :) Because it is extruded by violence from its abode. Besides this, it being accoupled to a matter contrary to its owne nature, and that matter predominating, *viz.* A dry terrestriall substance,

And why doth it descend seeing it is light.

substance, in which it existeth; that I say, this terrestriall matter, tending downe-ward, draweth the fire perforce with it: which may be perceaved by a kindled charcoale throwne out of ones hand, which carryeth the fire along with it.

The cause of the admirable effects of thunder.

Againe, if it be expostulated, what can be the cause of the admirable effects of this thunder? at some times bruising the blade of a sword, the sheath unoffended; melting mony and gold in a pocket, the pocket remaining entire; and killing a Man and not harming his cloathes; And what maketh things touched by it smell of sulphure and brimstone? And to kill a man in such sort, that the bolts shall bruise all his bones, the flesh never a whit hurt, nor by appearance touched; and the like.

Why the thunder of blacke clouds are more terrible, then those of White.

Thus much for answer. The thunder which is expelled or extruded from blacke clouds, is more violent and hath greater force, than that which is ejaculated from the whiter clouds. This thunder then by nature subtile, and pearcing, but much more purified in it's distent, when it mixeth with the aire, is far more subtilized: And againe being by the fire, and heate of the thunder repurged of all grossenesse, it is made so purely spirituall, that is pearceth suddenly, and insensible as it were, almost all porous bodyes, and never exerciseth it's force till it finde resistance: And hereby it appeareth plainly how the skin is, as it were, untouched when the bone is broken, which may serve for all accidents in this kinde.

But when it onely toucheth the outward of things without any great hurt, it betokens the weaknes, and imbecilliry

imbecillity of the matter. And where commonly bodyes, so thunder beaten, doe smell of sulphure and brimstone, the matter of Thunder giveth the reason, Why those that be thunder beaten smell of brimstone. for it is composed of dry, and sulphureous exhalations, as of the smoake of *Sulphur-terra* by *Naples*; of hot smoke in bathes, and rocks there; of *Monte de Sommi*; of *Ætna* in *Sicilie*: of the burning hills at *Mexico* in *America*: of our *Hecla* in *Island*, and such like chalkie, lymie and sulphureous places; so vapors elevated out of these and the like places, must make thunder which is composed of them, to favour of them.

Now to those, who aske which is the place where thunder is procreated, and begotten: answer may be made, from the grosse humidity, having in it some terrestriall glutinous, and viscons humor not easily separated from it that it existeth in; which being thickened in a cloud in the highest part of the middle region whither they are elevated, above all other clouds, composed of other moist vapours; from thence (I say) by the invironing cold, by *Antiperistasis*, or a stronger opposite part, they are extended and throwne downe. The true matter of thunder.

Qu. Again, if any demand why blacke clouds are conjectured most to containe, and send forth thunder bolts most fearefull?

I answer, indeed as blacke clouds, flashes, and lightnings, are little to be regarded, in respect that the blacknesse of them argueth but little fry matter to bee within; But contrary wayes that it aboundeth in wateryish vapours; So commonly after thunder great The reason why the thunder of black clouds are most dangerous.

raines, ensue; the cloud being dissolved, and the fire expelled. But indeed, if the lightning bee not much to be feared of such a blacke cloud, yet the thunder bolt of it is terrible, as being violently expelled by the predominating cold, even as the great charge of a Cannon enforceth the bullets flight, and causeth the roaring noyse of it.

Of reddish, or whitish coloured clouds, the bolt is but weake in regard of the rarity, and paucity of cold vapours to expell it; but the flashes and lightning will be found dreadfull, in respect of the abundance of exhalations, wherewith, after their owne colour, the cloud is dyed.

But leaving these fiery and hot Meteors, we betake us againe unto the moyst and watery ones, as more consonant and frequent to our climate.

All weake Meteors have one common matter.

Their difference in forme, and place.

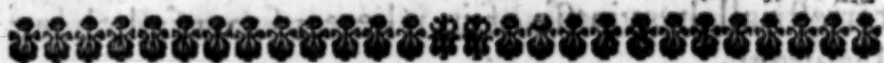
First, if it bee asked whether our moyst Meteors, such as snow, haile, and raine, have one common matter, whereof they are generated; and if they have one, what can be the cause of their different shapes and formes; for we see the snow broad and soft, contrarieways haile, round and hard. No question but one matter is common to all, *viz.* Waters; from which, by vapours they are elevated to the aire; and in which they are dissolved againe: but the difference standeth here. That the neereft matter (to say so) of snow, is vapours congealed in a cloud, which hath in it a great mixture of aire; by which meanes, being some way heated, when the snow dissolveth, you see it holdeth, open and soft, by reason of that aire, whereas haile hath no airy substance in it, and thus qualified by experience, that we see haile fall downe on a suddaine

suddaine, and oftentimes with violence, because of the terrestriall heaviness of it, whereas snow falleth but leasurely.

The reason why haile is round may be this, because falling down from the middle region where it is congealed, by the way it encountereth with some circular and round drop of raine or water, which accordingly by the rolling about of the haile it selfe, becommeth hard likewise; more especially, as not having any hot place, but the cold aire to fall through, till it light on our lowest region; which accidentally hot, for the time, you see, maketh them immediately after their lighting upon the earth, to dissolve quickly, or at least not long after. And as these two are formed in the highest of the middle regions, and for the extreame cold which is there are congealed: so on the other side because the clouds from whence raine issueth, doe not ascend so high; therefore they dissolve in drops before they can be congealed. And so by degrees, dew and Hoar-frost, because they are not mounted so high as the matter and clouds of raine; Therefore they fall sooner, and softer then raine doth; so one matter is common mother unto all of them; but the degrees of their elevation in the aire maketh their differences: the haile higher then the Snow, the Snow then the Raine, the Raine then the Hoar-frost, mildew, or dew is.

Why haile is round.

Why raine falleth in drops.



CHAP. IO.

Of Rivers, Fountaines and Springs, their sources and causes.

From whence
fountains have
their courses.

THere ariseth a question here not unworthy of our consideration. Whether the Springs and Rivers, in and on the earth have their originall from the waters of the Sea, by *subterranean* conduits, or from the waters on the superficie of the earth which is caused by raine; or finally from the huge and unmeasurable caverns, and hollow places of the earth, in whose bowells are monstrous lakes, pooles, and other standing waters, created of the ayre, therein enclosed, which not having any vent to ascend upward, but being condensed there, dissolveth it selfe into these waters. Now before we enter into the solution of this question, we must understand, that when I speake of the vast and endlesse caves, like valleys within the bowels of the earth, wherein waters are, that it is no invention of mine own: for *Seneca*, & with him *Aristotle* in his *Meteorologicks* in the 19 booke of his naturall questions instanceth it, saying, *Quid miraris (saith he) si distractus terra non sentiat, cum adjectos mare non sentit?* And againe, *Quemadmodum supra nos imbres, ita infra nos fluvios aer facit, supra autem nos diu segnis aer stare non potest, qui aut sole attenuatur, aut vento expanditur; sub terra autem, quod aërem in aquam vertit idem semper est, scilicet umbra aeterna.*

aterna, frigus perenne & in excitato densitas qua, semper materiam fontibus fluminibusq. praebeant, and so forth: all w^{ch} hee confirmeth in that same place by authority of *Theophrast*, whom hee bringeth in saying, That since the Earth hath swallowed Townes, Cities, and houses, who can doubt but that there are within her bowels, Brookes, Caves, Dens, and Valleys? which seeing they cannot be empty, must of necessity bee full of waters. Seeing then all things are composed of all the Elements, as of their common causes; (For water is a thickned ayre; and the Ayre againe a rarified water :) How then can these subterranean hollow places, but be full of waters, since the Earth doth dissolve in waters, to fill them up? For the earth being delved or digged but a very few footsteps downe, water doth straight appeare, earth and water being of as great affinity as ayre and waters are: howbeit *Zeno* and others doe contradict this opinion, saying; That the Earth is a massie, solid, and *homogeneous* body. I say, that absolutely the Sea (as a common Mother to all waters) is she, from whence all Rivers, and Springs have their source, but yet not so wholly, but that they may be augmented by raine and water, as wee see by experience; that after huge raines, both Fountaines and rivers doe accreasse. And if it bee asked, how water being of its owne nature heavie, can leave its owne element and centre, and bee conveighed to the tops of Mountaines and high places, as may bee daily seene almost every where.

To this first, I say, that the Sea being some way higher than the Earth, most easily, by its owne conduits, and channels, it may make passage unto it selfe, as through so many veines.

That there is waters within the earth.

The Sea the mother of fountaines.

How Fountaines are on the tops of mountaines.

Besides.

Besides this, the vapours which the Suns heat, and the power of some other Planets, raiseth from the waters even under the earth, are not ever exhaled and carried aloft to the Ayre, but sometimes are even retained for a long time in solid places of the innermost parts of the earth; where gathering themselves into the concavities thereof, they boile upward by the force of the said agitation, as a pot upon the fire, by the force of an under heate: so these waters bubbling up through the earth cause our fountaines; which running downeward againe, to the Valleys and Plaines, doe make our Brookes, Rivers, and Springs. And of this opinion is venerable *Albertus Coloniensis*, commenting *Aristotle* upon this question, *Dubio nono & decimo*. Or it may be said, that the caverns and concavities of the earth, being filled up with waters, which distill from the want of the caved earth above, are procured by the grosse Ayre there inclosed and converted into waters, which issuing out of the rarer or voider parts of the Earth, above, do occasion these Springs, Rivers, and Brookes.

How mount-
taines; furni-
sheth water
unto fountaines.

If it be demanded if steepe Mountaines do not retribute and send downe waters to feed our Springs and Rivers; there is no question, for in their concavities, of certaine, there are treasures of waters, which bursting out at their lower parts, doe yeeld plenty enough, to bedew the lower Countries; not that these waters are gathered there by raines which fall (for raine-waters penetrate not so deepe into the earth) but rather that the Mountaines themselves, being spongeous, doe attract and draw together, their whole dissolved waterish matter, to the frontiers and

conca-

concavities; from whence surging and breaking-forth through orifices, they grow into springs, brooks and sometime rivers.

Quest. What causeth some Fountaines to last longer than others? certainly, that must proceed from the copiousnesse and abundance of the veine and waters, such long-lasting ones have, above the others.

Or finally, if it be demanded what can be the cause that some Rivers, and Springs, which formerly did flow in large swift currents, do lessen, and sometimes totally dry up? That must not be imputed to the situation or change of the Starres, as some suppose; by which (say they) all places in the world are altered; but rather unto the decay of the veine: peradventure, because the earth preasing to fill up voidnesse, hath sunke down in that place, and so choaked the passage, and turned the course another way.

Why some
springs cease
running.

Neither can there be a fitter reply given unto those who aske; what maketh two Springs or Fountaines which are separated onely by a little parcell of ground, to bee of a contrary nature? yea, one sweet and fresh, the other brackish and salt; one extreame cold, another neere adjoyning to it, to bee lukewarme.

What maketh
two fountaines
a little distant,
one hot and
another cold.

Then the diversity of Oares or Metals, through which these waters doe runne, which is the cause of their different tastes and temperatures; as on one parcell of ground some flowers and herbs salutiferous and healthfull; others venemous, and mortall may grow.

The Moone is often said to bee the efficient cause
of

of the ebbing and flowing of the Sea; now if so be (as universally all the Learned hold) what is the cause, seeing shee is universally seene by all Seas in a manner, (and I may say equally) that therefore all Seas flow not and ebbe not alike?

To this I thinke no better reply can be given, than that some Seas there are which be rather Lakes, in a manner, and of fresher water than Seas, in respect of the incessant running of endlesse Rivers into them, whereof they make no account againe (to say so) by subministring matter to Rivers, Fountaines, Brookes, or Lakes, as the Ocean doth: the invironing bankes, and shoares being higher almost than they: such are all Sounds, Gulphs, and (it may be) the Mediterranean Sea also. Or yet we may say, that the profundity and deepenesse of some Coasts hindereth the flowing more then it doth upon shallow and ebbe sands and other valley and low bankes.

The veines
through
which the wa-
ters run ma-
keth them salt,
hot, or cold,

Now the cause of our hot Baths neere *Bristoll*, in *Flanders*, *Germany*, *France*, *Italy*, and else where, is onely the sulphureous and a brimstony Oare, or Metall through which their waters runne; as the salt earth through which some waters doe runne, is the cause of their saltnesse, such as the Salt-pits in *Poland*, and *Hungarie*, out of which Salt is digged, as our Pit-coales, and stones are digged out of Quarries. And no question but these waters are heated too by running through such earth.

These, and the like, are the reasons given by Philosophers, for such secrets of Nature, as either here before I have touched, or may handle hereafter: and howbeit, by humane reason men cannot further pry
into

into these and the like, yet no question but the power of the great Maker, hath secrets inclosed within the bowels of Nature, beyond all search of man: To learne us all to bend the eyes of our bodies, and minds upward to the Heavens from whence they flow, to rest there in a reverent admiration of his power, working in, by and above nature; and that by a way not as yet wholly manifested unto mortall men.

Gods power
outreacheth
mans wisdom

By all which, and many more we may easily espie as the power, so the wisdom of this our Maker, in disposing the forme of this Vniverse, whether the great World, or the little one, M A N; in both which there is such a harmony, sympathy, and agreement, betwixt the powers above, which wee see with our eyes, as the Heavens, and the distinguished Regions of the Ayre in the greater World, with the Earth and Seas; or of the soule, minde, life, and intellect of Man; the heaven in him comparatively, with his body, the Earth, and such like, of the one with the other; that is the great and little world together, as is a wonder. For as in the Ayre, how the lower parts are affected, so are the superiour; and contrarywise, as the superior is disposed, right so the inferiour. So we see that not onely a heaven of Brasse, maketh the Earth of Iron, but likewise waterish and moist earth, causeth foggy and rainy ayre: as a serene or tempestuous day maketh us commonly either ioyfull or melancholy: or as a sad and grieved minde causeth a heavie and dull body: but contrariwayes, a healthfull and well tempered body, commonly effecteth a generous and jovially disposed minde.

The comparison of the great
& little world,

A worthy similitude.

OF
VARIETIES
THE
THIRD BOOKE:
CONTAINING FIVE
TREATISES.

- OF {
1. *Armies and Battels.*
2. *Combats and Duels.*
3. *Death and Burials.*
4. *Laughing and Mourning.*
5. *Mentall Reservation.*

BY
DAVID PERSON of *Loughlands* in SCOTLAND
GENTLEMAN.

Et quæ non profunt singula, multa juvant

LONDON,
Printed by RICHARD Badger, for Thomas Alchorne,
and are to be sold at his shop, in *Pauls Church-yard*
at the signe of the *Greene-Dragon.* 1635.

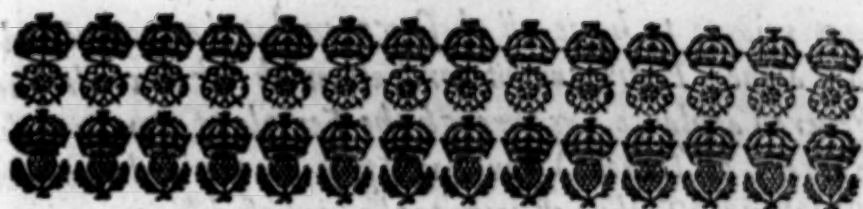
OF
THE
THIRD BOOK
CONTAINING FIVE
TREATISES.

1. Of the Power and Bonds.
2. Of the Combat and Duel.
3. Of the Death and Burial.
4. Of the Laughing and Mourning.
5. Of the Mental Reservation.

BY
DAVID PEARSON OF LONDON IN SCOTLAND
GENTLEMAN.

Printed by J. Knapton, in Pall-mall.

LONDON
Printed by J. Knapton, in Pall-mall, for T. Bland,
and are to be sold at his Shop, in Pall-mall, near
the Church of St. James's, 1691.



TO

THE RIGHT HO-
NOVRABLE THOMAS

Earle of Hadington LORD Privy

Seale of Scotland, and one of His Majesties

most HONOURABLE Privy Counsellor

both KINGDOMES.

Right Honourable,

IF writers of books in former ages have made
a gratefull commemoration in the front of
their workes, of worthy, men who for their
brave deeds either in Peace, or War, Church
or Common wealth were renowned, thereby
to eternize their fame, and by their examples to extimu-
late others to the imitation of their vertues; nothing
could expiat my trespassse, if I should passe over your Lord-
ships most accomplished rare vertues, thereby to deprive
posterity of so excellent a President, especially amongst
your other many exquisite perfections you being in this
barren age so worthy a patterne, and Bountifull Patron of
letters and literate men. Let antiquity boast it selfe of the
integritie of a Greeke Aristides, in the gravity and in-
flexibilitie of a Roman Cato, and the rest: yet our age

(** 2.)

may

may rejoyce to have all these accumulated on your Lordship alone; Envy cannot conceale with what credit and generall applause (as through the Temple of Vertue to the Sacrary of Honour) you have past all the orders of our Senatoriall Tribunall even to the highest dignity; where, like an Oracle, you strike light through most foggie and obscurest doubts. The continued favour of Kings, the aggrandizing of your estate by well-managed fortune, the peopling by the fecunditie of your fruitfull loynes not only your owne large stocke but many of the most ancient and honourable families in our nation, may well set out your praises to the world, but the true Panegyrick which I (if able) would sound abroad your Honours due deserving merits, to which, in all humility and reverence, I offer this small pledge of my entirer affection, hoping ere long to present them with something more worthy the studies and travels of

Your Lordships in all dutifull
obedience.

D. PERSON.



OF
ARMIES
AND BATTELS:

Wherein by the way our mo-
 derne VVarfare, is compa-
 red with the Old Roman.

THE THIRD BOOKE

Section 1.

*That greatest armies have not alwayes carryed away the
 victory, the reason of it; two examples, of Semiramis,
 and Xerxes.*

FIND in Histories, that not alwayes
 the greatest, and most numerous armies,
 have carried away the victories in Bar-
 tels; whether it is, that the LORD of
 Hosts will disappoint them who trust in
 their

Greatest armies have not
always done
great.

their numbers, and armies of men, or their Martiall
Horses and their strength, or in their military disci-
pline. For it is probable, that as their infinite num-
bers, cannot ever be so well Marshallled, as that, at all
times requisite, they can come to blowes; so on the
contrary, if once they chance to turne backes, the Pa-
nike feare that seazeth on so grosse, and peccant a bo-
dy, is so remediless, that they can scarce ever bee
brought againe into any right or perfect order, which
in lesser armies, driven to such extremities, we heare
and reade to have hapned: Or rather shall we say
with that Captaine of the *Volses*, marching against
the old *Romans*?

*Armati armatis obstant virtute pares, sed necessitate
superiores.*

And againe;

*Iustum est bellum, quibus necessarium, & pia arma,
quibus nulla, nisi in armis, relinquitur spes.*

*Semiramis in-
numerable ar-
my defeated by
a very few un-
der an Indian
Prince.*

I need not insist too much on battels of unequall
numbers, for the Greeke and Roman Histories are re-
plenished with them; yet two I will produce, as in-
credible for their numbers, as unlikely for their losse.
The one, of *Semiramis* Queene of *Babylon*, who set-
ting out for the conquest of the *Indies*, made up an ar-
my of three millions of armed men, whereof tenne
hundred thousand Horsemen, the rest were foot, be-
sides many hundred thousand Chariots, with blades
like sythes, or falchions, sticking out on either side;
with many hundred thousand Camells and Elephants
to fight on. Which horrible armie was so over-
thrown by the Indian Emperour, that scarce one hun-
dred returned home alive.

The

The other was of *Xerxes*, that powerfull King of *Persia*, who intending to subdue Greece, came downe upon it with such an army, that Rivers were drunke dry by the multitude of his souldiers. *Herodotus* reporter of the former two, reckoneth this whole army to amount to seventene hundred thousand by land: and two hundred and fifty thousand by Sea, with 2200 Galleys; for, by Sea and land, he intended their subversion, and came downe for that intent.

Xerxes also
overthrowne
by a handfull
of Greekes and
Salamines.

The insolencie of this King (enviored with this terrible armie) was such; that intending likewise to subdue *Europe*, and for which purpose he prepared to passe the *Hellepont*, (some seaven miles broad) but because his bridge of boates, by the waters impetuousnesse, was overthrowne, which he caused to be contrived for that effect (as *Alexander* did at *Tyre*) he made his Souldiers, with him, vainely to whip the Sea for it's resistance against his so vast power. Neverthelesse this presumptuous King (I say) with all his forces, and numbers of men, by a small number of Greekes, was overcome at the Battell of *Thermopila*; in so far that, that same glorious King of *Medes* and *Persians*, was forced to steale over the *Hellepont*, slenderly accompanied in a frigar, or Shallop, in the yeare of the world 4720. or thereabouts, if *Sabellicus* mistake not.

The battaile
of *Thermopila*.
lx.

Now as these two remarkable and populous armies were thus defeated by the smaller number, and so confirmeth this assertion afore-mentioned; So who will follow forth the tract of all either divine, or heathen Histories, shall finde it more manifestly approved.

As for holy Histories, unlesse I were obliged not only by an Historicall but by an Evangelicall faith also, to trust all comprehended within the old and New Testament as undoubted veritie, I could hardly be induced to beleve, that so little a territory as the holy land was (and yet is) could afford so many hundred thousand fighting men, as were so often recorded to bee raised in it; unlesse that some would say, that beside the blessing of God upon that land in making it to overflow with milke and hony, wheat, wine and oyle, that so he would have it to abound in men likewise.



Sect. 2.

Examples of Greeke, Roman, and British Battels, where the fewer number have overcome the greater.

THere is a freedome left to every Reader of Histories, to beleve or not beleve every particular in them: yet those battailes, where the fewer numbers have overcome the greater, will most startle beleefe; as that victorie of *Alexander* over *Darius*; the battails of *Thrasymenes*, *Cannes*, with the *Pharsalian* field, and the like. For *Alexander*, with but a few, did beat *Darius* great hosts: *Hannibal*, with lesser multitudes overthrew the *Roman* Consuls, *Paulus Æmilius*, and *Terentius Varro*; *Iulius Caesar*, with almost the halfe of *Pompeys* number put him and his armie to rout.

But neither the imparitie of the Greeke, nor *Roman* batails

battels fought by them can give so great assurance of possibility, that small troupes have overcome the greater. As that battell of *Poitiers* by *Edward* the blacke Prince of England, against *Iohn* King of France ! where, not onely foure times as many that day were put to rout, by the worthy English, but likewise the King himselfe was led captive into England; whose ranfome redacted his countrie unto that penury, and scarcity of money, that they were forced thereafter, to coyne and stampe pieces of leather money, as their History of that time recordeth.

Iohn King of France overthrown by *Edward* the black Prince of England.

Neither, was that glorious victory over the French much more remarkeable, nor more sufficient for prooffe of this then was that famous victorie of our valiant *Bruce*, at the battell of *Bannak-burne*, against another *Edward*.

Edward Car-marvan of England overthrown by *Bruce* at *Bannak-burne*.

I might adde to these two the renowned victories woone by *Scanderbeg* a petty Prince of the *Epirots*, who with but a handfull of men (as it were) did overcome the hundreds of thousands of that victorious *Mahomet*, as at length may bee read in the Turkish Historie.

Scanderbeg with a handfull overthrew *Mahomet*.

Section

Neither was there any thing encouraged our brave English at the approach of the Spanish warre, more than the assistance and unwearied countenance of that ever famous *Elizabeth*, lying in the front of her troupes with a javeline in her hand (like an armed

Queen Elizabeth at the front of her troupes.



Sect. 3.

Whether it be requisite that Princes hazard their Persons in field or not; of the Encouragement that their presence giveth to the Souldiers: When a King should venter to the field; and what Lieutenants are to be deputed by him; all exemplified.

If Princes may hazard their persons in a field or not.

OUr Politicians, of latter times, have made it a great question, whether a Sovereigne Prince should hazard his person in battell or not, considering the great losse that ensueth either by his death, or captivitie; a thing never doubted of in former ages; no not by such Kings who though sickly and diseased, have caused to carry their bodies from their bed unto the field, thereby the more to encourage, with their presence, their mutining and doubting armies; as *Plutarch* witnesseth in the life of *Eumenes*. Yea, *Xisea* had such a conciete of himselfe and his owne presence, that after his death, he ordained his skinne to be flead off him, and a drumme to be covered with it; imagining thereby, that, as he in his life had terrified and sorely beaten his enemies, so the sound of this after his death would be a terrour unto them.

Queene Elizabeth on the front of her armie in 88.

Neither, was there any thing encouraged our brave English, at the approach of the Spanish *armado*, more, than the assurance and undismayed countenance of that ever famous *Q. Elizabeth*, ryding in the front of her troupes with a laveline in her hand (like an armed Pallas)

Pallas) as the Bishop of Ely in his treatise of the 88. most appositely relateth.

Philippe de Commines observeth nothing more worthy of re-marke in the battell of Fornouncie (which the Italians call the battell of *Tarr* which was strooke at the foote of the *Appennine* mountaines, by the French King Charles the eight, against the Venetian armie, under the conduct of the Marquise of *Mantua*, their generall, at the Kings returne from Naples homeward,) then the young King his generous encouraging of his people, with a chearefull countenance: and so much the more; because that the night before, the armie was so terribly frighted with thunder, flashes of fire from heaven, horrible tempests of winde, and raine, all which he perswaded his Souldiers, were onely ominous prodigies, to dismay their enemies.

The countenance of a King a great encouragement unto souldiers.

So then, when I seeme to admit, or allow the presence of a King in his Armie, rather than to devolve that charge on Deputies; it is not to bee understood, that therefore hee should play or act the part of a Souldier, exposing his sacred person unto danger and palpable hazard, which are onely for common Souldiers; but onely by his advice, and countenance, to encourage, direct, and ensure all things.

---*Stetit aggere fulgi*

Cespitis intrepidus vultu, mernitque timori

Nil metuens---

As *Lucane*

speaking of *Iulius Caesar*, exquisitely remarketh: neither yet is it to be understood, that a King should in person be in his battels, and armies at all occasions, but then only and especially, when the enemy is within, or ap-

When a King should be in proper person in a field.

Why powerful
subjects are
not alw yes
fitted to bee
elected Gene-
rals of armies.

proaching his Countrey; for otherwayes hee may very conveniently doe his businesse abroad, by his Lievetenants. Provided alwayes, that he who is imployed, be not of such eminency, as thereby he bee able to encroach upon his estate; and then armed with men, power, and strength, favour and meanes, attempt against his Sovereignty: but that by consanguinity, or other obliging bonds, the Prince bee assured of this great mans fidelity and trust: as examples of former Ages can yeeld sufficient testimony to have beene practised: to which purpose I will onely instance, that notable authority of *Velleius Paterculus*, in his abridgement of the Romane History; when he speaketh of that great imployment intrusted unto *Pompey*, in scouring the whole Seas of those mighty and many *Pirats* w^h infested it. *Idem autem* (saith he) *in Marci Antonii pratura ipsi concreditum fuit, populus id equo animo ferebat;* (and why) *Quia raro eorum invidetur honoribus quorum vis non timetur, tum demum vero extrema eorum formidantur, qui vim in potestate habent.*

One Generall
fitter, not two.

Next it is most requisite in the deputed expeditions that two Commanders be not placed over one armie; the Heavens cannot abide two Sunnes, as *Darius* was told by the *Macedonian Alexander*.

--- *omnisque potestas*
Inspatiens consortis erat---

• But leaving former examples, or later miserable experiences of this, wee have in hand, I cannot but applaud that memorable Motto of the Duke de Mayne, on his Colours and other Ensignes, which doth well to this purpose; for when he had taken upon him the
conduct

conduct of his Brother the Duke of *Guyse's* forces, after hee was killed at *Blois*, had these words for his Motto,

*---vno avulsō non deficit alter
Aureus, & simili fronde scet virga metallo.*



Section. 8.

Of the Romans prudence and foresight in sending two Commanders abroad with their Armies; and why the Grecians conjoynd two in their embassies: and of the danger of too strict Commissions.

IF it be objected here, that the *Romans* and *Grecians* (who were chief Masters of this military Art) did in all their expeditions send two Consuls, or Deputies together; yet that maketh not any wayes against the former assertion: for as the severall effects thereof proved not alwayes successfull, as their lamentable warres can testifie; and particularly the bloody fights betwixt *Silla* and *Marius*, each vindicating to himselfe the honour of captivating the *Numexian Jugurtha*: they commonly were sent, so, that either alternatively they should beare rule; or the younger was accoupled to the elder, that the younger might submit and give way to the gravity, yeares, and authority of his Senior; or finally these Consuls were so attemperated in that charge, that one of a slow and procrastinating disposition was still joyned to one of a sudden and forward nature; yet none of all scarce ever proved successfull

How the Romans and Grecians send two Commanders with their armies abroad.

Their foresight and prudence herein.

to

to the Citie: For what desolation *Terentius Varro* his suddenesse brought unto the State that day that befell him to command, (although against the will or consent of the elder *Paulus Æmilius*) at the battell of *Cannes*, their Histories yet may beare record in letters of blood.

Fabius and *Marcellus* contrary dispositions.

And though *Marcellus* and *Fabius*, were so joyned, that *Marcellus* impatiency was tempered and allayed by the delaying nature of *Fabius*, yet there are few *Fabii Maximi* to endure the upbraiding and insolent bravadoes of a camarade as he did; yea, and of his whole Armie, for not fighting at such occasions as they thought advantageous; of whom the Poet said well,

Vnus homo nobis cunctando restituit rem.

And of both, their legender *Plutarch*; That *Marcellus* was the Sword of *Rome*, and *Fabius* the Buckler and defence!

Why the *Grecians* did send alwayes two, in ambassage, or to field.

That the *Grecians* sent alwayes two together, either to wars, or in Embassage, was rather to the effect each should pry into, and controll the others actions, to save their Common-wealth unbetrayed, then for advancing the businesse they were sent about; as in the lives of *Lisander* and *Calicrates* is manifest; every one of them for envy, emulation, and ambition, undoing that which the other had plotted.

Now, as the *Romane* and *Greeke* examples above rehearsed, doe make little for the authority of two Generals over an Armie, seeing the formerly particularized evils doe ensue: In as little doe I thinke their example to be imitated in these our dayes for prescribing particular and precise injunctions unto Generals,

in

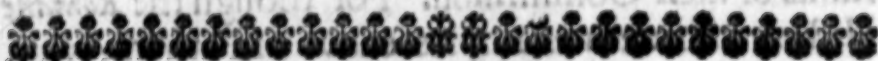
in so farre, that they may not in a jot transgresse the limits of their Commission. For though the *Romane* History affordeth examples enow of Fathers; who, when their own sons had returned victorious, and the businesse they went about, well and honourably performed; for which the first day they were honoured with the Ovations and Triumphs due unto victors; yet the next day were put to death for having gone beyond the points of their Commission; yea, but for halting one day more by the way, than punctually they were enjoyned to doe: (though peradventure they had brought the enemy unto such a passe, that if that day had escaped from giving battell, or any other thing of like consequence, the state of the Common-wealth might have beene imperilld, or the enemy escaped, or the like.) Yet I know not how their doings, by Lawes of a well managed state, may be lawfully warranted.

The limiting
of Generals
Commission
dangerous.

For in wars it may be, that the opportunity of doing well presenteth it selfe so, that if the General lose the point of that present service (though his Commission carry no warrant for it) he may hazard to posterity both his fame and credit, and may, (which is more) endanger the state, or Prince whom he serveth.

But as the jealousie of the *Romans* for the conservation of their liberty and state burst out in these strict Commissions; so I shall wish that for the preservation of ours, all expert States-men upon most weighty considerations doe advise, such as the *multifarious* exigencies of affaires require; for I am no wayes to direct.

Scot.



Section 5.

Difference betweene Battels and Duels : that Generals may refuse challenges : with some passages betwixt Hannibal and Scipio in their warres.

Great ods betwixt battels and duels.

NOW to returne to our Battels from which we have digressed ; I observe great ods betwixt battels and duels : for in battels neither Generals of Armies repute it a point of disparagement or discredite, if either they refuse to fight, when they are bravado'd by their enemy : nor yet a point of disgrace to sue for conditions of peace and friendly compositions, when all things all cleare in the field : any of which, or both, in matter of duels, should be reputed a perpetuall disgrace, unlesse it were in such termes as the Barons did ; mentioned in the Chapter of combats.

To shew fighting at times is no disgrace unto a General

Of the first, we have the example of *Fabius Maximus*, whom *Hannibal* bravadoed so insolently, that *Fabius's* owne souldiers had him in derision. And of late, the Duke of *Parma's* example, who relieved the Towne of *Paris*, from that terrible siege, wherewith King *Henry* the third and last of the *Valoyes* had beleagured it, for rising in armes against him in favour of the house of *Guise* : I say, this Duke having raised this siege, at last releevd the City with necessaries, in spite of all King *Henry* the great, then of *Navarre*, his valour, and hard pursuit ; yea, and offer of battell :

yet

yet he returned the way he came without apprehending any disgrace, but deferred till he thought fitting againe to give him battell.

And on the other part, if any of all the worthy Ancients had reputed it an aspersiō, or imputation either to their fame, valour, or fortune, who so unlikely to sue for putting off fighting, as that witty, wise, valorous (and till then fortunate) *Hannibal*, and that at the hands of the man on earth, with whom he stood most upon points of credit and reputation, viz. *Scipio*, his *Antagonist*.

And yet the History represents unto us, that the sixteenth yeere of the Punick warres, when *Scipio* the *African*, had invented, and prosecuted that stratagem of warre, to draw *Hannibal* out of *Italy*, by kindling the fire of war in his own Countrey, yea, at the Gates of *Carthage*; which accordingly as he had invented, he put in execution; so that the Countrey and Citie, at the first approach of the *Roman* army, posted away Commissioners unto *Hannibal* to haile him over into *Africk* with all his force, or else that all was undone.

Hannibal, I say, considering that policy, and with all remembring unto what extremity he had both driven *Rome*, and almost all *Italy*, and what he might have done if he had not beene so soone fatally recalled; moreover, being landed, and finding his forces not able enough to encounter *Scipio* (both Armies being in sight of other) before the battell should begin, desired parly with *Scipio*, and in these or the like termes the History makes *Hannibal* in mid-field to speake unto him, after serious eying each other.

Hannibal su-
eth for peace at
Scipio.

Hannibals
speech unto
Scipio.

The Heavens be propitious unto our meetings; now that I, who am the elder, sue for cessation from fighting this day (great Scipio) impute it unto fortune; whom now I perceive like a woman to favour thee at this time, who art the younger; the variablenesse of these events (mee thinks) should move thee to condescend unto the peace I plead for, yea, as willingly and effectually as I crave it, if you doe but ponder in the ballance of an impartiall and not preoccupied minde, what diversity of chances have fallen out since the beginning of our warres, and how, even now, this same Citie, which offereth conditions of peace, had both your glorious Rome, and in it all Italy, quaking and trembling under the auspices of my fortunate successes; and how I am still the same man as before: and withall, how the Gods have a watching eye, and revenging hand when they are invocated as witnesses unto equall conditions offered and refused for the preserving of humane blood.

And as they ever were, so still they are able, to turne the chance against all, whose swelling presumption would hinder the perpetuall peace of both Empires. I am confident yet, great Scipio (saith he) that the sense of vicissitude in martiall affaires shall touch thee so, as not to indanger all thy fresh former Trophies under the hazard of a doubtfull battell. Call but to minde the fatall examples of so many brave warriours, and particularly of your countryman Atilius Regulus (seeing home-bred experiences are most sensible) who having attained the verticall point of honour, and preferment, by the fortunatenesse of his successfull victories, while hee did not command his felicities, was plunged in the miserablest of misfortunes, &c.

Section



Sect. 6.

That the exploits of our moderne warriours, have bin every way comparable to those of the Ancient; with some examples to that effect.

AS no judicious man can be so unjust as not to re-tribute due honour to the never dying Worths, and valours, of the many renowned *Roman* and *Greek* Commanders, with others in all former Ages; so ought no man to be so transported with their so largely famed deeds, as thereby to derogate from the true worths, the many most admirable exploits; the undaunted courages, of the many excellent and most warlike Commanders that have of later Ages, like so many Comets, shined in their times, over Christendome; of whom our own Countries (without ostentation I say it) have filled up a very large number.

It is not to be doubted but that in these our latter ages there are men every way equall for all manner of warlike exploits, whether stratagems, policie, or undaunted courage, to the so famed *Hannibal*, *Scipio*, *Fabius Maximus* and the rest. That exploit of *Hannibals* indeed, when *Fabius Maximus* had enlabyrinthed him in that straight of the *Apennine* Mountaines was preferable to any in my conceit: with which I balance that admirable stratagem of *Sir Francis Drake* in firing the Spanish *Armado* in 88. That bred the ruine of that so huge and expensive Navie and so formidable to this whole Iland.

*Sr. Fr. Drake's
Stratageme in
88.*

It

Hannibals Stragem.

It is observed of *Hannibal*, that being in that straight, and recollecting his wits how to escape, with his armie, hee gathered together all the Oxen in the country about him, and under cloud of night, having tyed unto their hornes bundles of vine branches, like little fagots, which he kindled, and therewith chased them along the Mountaines. Now they being so terrified with the flames of fire, burning about their eares, made such a noyse, and dreadfull show along the sydes of the mountaines, as they ranne, that the *Roman* army, which lay in the valley, being astonished at such a sight, (it being in the night) when all things are most dreadfull) did betake it selfe unto the opposite Mountaine, and made way to the *Carthaginian* armie which then marched to escape: neither think I, but for all the fame of these ancient illustrious deeds registrated in their records, but if either they had chanced to have adoe with the people of these ages, where the acts of warre are better refined, and purified then in those times; Or yet if our commanders had served in that age; but they had come shorter of victories here, then ours had done in their achievements there. But as *Alexander* reputed *Achilles* happy who had a *Homer* to sound his praises; even so these brave *Heroes* were a like happy, whose *Histories* have not beene sparing to set them out in their fullest dimensions.

Section.



Sect. 7.

The difference betwixt the ancient manner of warrefare ; and the moderne : how farre the moderne engines of Warre exceed those of the ancient Greekes and Romans.

IN marshalling of our armies, and Battels, our moderne plans jump almost with those of the Ancient ; yet our Sieges, beleaguering of townes, and instruments of war doe far exceede theirs, whether by Sea, or by land.

And first that the forme of drawing up of our armies, is not far different from theirs, appeareth in this. Our armies consist of so many regiments, the regiment of so many companies, and our companies of so many Souldiers ; then, subdivided amongst themselves. Our armies, in whole, having their Generalls commanding them, our Regiments their *Colonells*, our Companies their Captaines, and every one of these their *Lieutenants* and under-officers, conformable unto the stations of their charge, such as *Sergeant Majors*, *Quarter-masters*, *Ancient Corporalls*, *Serjeants* of companies, &c.

Even so the Roman armies were composed of so many legions ; the legion made up of 6000. souldiers, over which a *Tribune* had command : these againe were subdivided into so many Cohorts : the Cohorts into so many Manipuli, which being redivided in Centuries, were againe subdivided in *Contubernies*,

A comparison
of drawing up
of our armies
with the Old
Romans.

berneys which were the meanest company in a legion. These had a Captaine, a Lievtenant, and Ensigne-bearer, wherefore they were called *Subsignarii Milites*.

Thus two centuries made up a Manipulus, 3. Manipuli a Cohort, 10. Cohorts a legion, and so many Legions an armie lesse or more according to the exigencie of their affaires. When a Legion stood in battell array, the least squadron of it, was a Manipulus wherein was two Ordaines conjoynd together making 10. in front, and their Lievtenant in the reire: this excellent order of the old Roman warre-fare, is well nigh imitated by our moderne warriours, as I was saying in the fields, when, both then, and elsewhere their armies, were like well governed Citties. Yet on the other side the Roman sieges and all their engines of warre, come short in comparison of our manner of beleaguering now adayes, notwithstanding their *testudines, vinea, aggeres*, and *Turres*, which were hurdells and planks of Timber, built in such sort that Souldiers might securely fight under them, or like Mounts of earth rolled before them, under which they might make approach unto Walles, either for scaling, or undermining; these and all others of this sort, when they come in comparison with our fire workes, but chiefly our thundring Cannons, they are found to be but of little availe.

If the Roman field milice exceeded ours, yet our beleaguering, & instruments of warre exceed theirs.

But what shall we say? Truly we may conclude that in these dayes, true valour and strength had their just assayes, *cum latus lateri, dextra dextra, pes pedi*, as *Plautus* saith, were opposed to one another. Whereas now the bravest, and most venturous fellows with-
out

out much proöfe of their undoubted courages, are prostrate on the ground : So that for any thing I either heare or can reade in the French Histories, where manifest fights have beene in these latter ages ; and since these *Vulcanian* Thunderers have beene in request ; I understand (I say) yea even by those who were present, and had borne a part of the play themselves ; that so soone as the fire and showres of shot were spent, the victory almost beganne to incline, unto one side, or other ; before the push of Pikes, wherein commonly the strength of battels consist ; the Romans indeed had their *fundi*, and hurling ; Darts, but what were all these unto the former ?

The terrible-
nes of our pic-
ces.



Sect. 8.

That the Ancients in their warres had greater opportunities to try their prowesse, in battell ; then the modernes have.

AND as in their field battells, and seiges of Cities, their people had occasion afforded, by the lacke of these shot, to prove themselves and show sufficiently unto their commanders, testimonies of their valour, strength, and dexterity : So in their Sea-fights, though they had no Ships of any bignesse but Galleys (which then, as now, were of a low tyre ;) yet, whensoever they encountred, they had occasion to exchange blowes enow.

How the Ro-
mans had a fit-
ter occasion of
trying their va-
lour then we,

Whereas our Sea-fights (as they say) now adayes,

The battell of
Lepanto sur-
passeth all the
Romans Sea-
fights.

are able to astonish Neptune himselfe; no mercie being to be found nor almost place secure within our Ships, exposed as butts unto the fury of the roaring Cannon. That their numbers in these kind of fights exceeded ours, beyond compare, there is no question, their Histories doe verifie it: but if ever in their time there was such a Naumachie or sea-fight in their seas, as the battell of *Lepanto* betwixt us and the Turkes, I doubt of it. Where the favour of the Lord of Hosts seconding the Christians order, valour, Commanders and Souldiers willingnesse, and affections to that fight, purchased that victory worthy to be sung by a King, yea the best since *Salomon*, of one that bore Crowne, KING *James* of blessed memorie, which at length is to be seene in the Turkish Historie, and in *Du Bartas* small workes.



Sect. 9.

The manner how the Greekes and Romans ordered their battells, both by Sea, and by land; the battells of Cannas and Trasimenes described.

Four formes
of drawing up
of armies used
by the Romans

AS for the disposition of the Roman, or Greeke Sea-fights and battells, I find little other order, then that they were drawne up in a crescent, and so was the battell of *Lepanto*. But for their land battels, I read of foure kinds of pitching of them: For they were either into a straight front, by them called *recta acies* very usuall amongst them; Or else

else the manner of imbattelling observed by *Cæsar* against *Ariovistus*, was in request, which was, when one corner of the army was advanced neerer the nearest point of the enemies army then the other was; to the effect, the one being wearied, the other might advance to renew the charge afresh, which by him in his Commentaries was called *acies obliqua*. The third I understand, to bee that observed by *Scipio* in Spaine called *acies sinuata*, in manner of halfe Moone, whose points were advanced, as the Sea-battells spoken of before: And his reason of marshalling of them thus was, because he understood his enemies best men to be placed in the middle of their army, and so by advancing his cornets he discomfited, and put their battallions unto confusion, before the better Souldiers could come unto blowes. The fourth is *acies gibbera*, or *gibbosa*: When the maine battell advanced, but the two cornets lay lagging behinde in manner of Cressant too, with the Hornes or points arreirward: This forme was observed by *Hannibal* at the battell of *Cannas*, whereas he did the contrary unto *Scipio*, neither wanted he his warrand as the effect proved.

And howbeit *Sr. Walter Raleigh* in diverse places of his great and judicious workes takes me much, yet in nothing more, than in this description of the plaine order, fight, and end of that battell at *Cannas*, which was thus; *Terentius Varro* having inforced the grosse of *Hannibals* Cressant, in which, contrary to *Scipio's* order, his worst souldiers were, whilst some *Nymidi-*
ans counterfeiting a flight, to traine the *Romans* unto their chase, some further within the Cressant made way unto them; till in the end, they were en-

Description of
the battell of
Cannas.

countred by *Hanniball* himselfe: who standing in his squadron of *Carthaginians*, under the shaddow of the vanquished grosse battallion drove them back againe, within the circumference of the halfe Moone, whose face looked towards him; which closing again, where it was first inforced, environed the il-governed *Roman* Armie; so that they were exposed as a pray, unto the fury of the *Maures*, *Numidians*, *Spaniards*, *Carthaginians*, and some of their Countrey-men *Italians*, whereof *Hannibals* Armie consisted.

The defeats
of *Cannas* and
Trafimenes ra-
ther by the
Romans un-
skilfulnesse
then provesse
of their foes.

Which overthrow of the *Romans*, with that at *Trafimenes* received under the consulship of *Cneius Servilius*, and *Titus Flaminius*, hapned rather by the fury and blinde ambition of the two younger Consuls, for the time (who would not attend the opportunities of times, and places appointed by their elders, viz. *Paulus Aemilius* Consul with *Varro*, and *Cne. Servilius*, with *Flaminius*;) then by the dexterity of *Hanniball*; or yet the valour of his people above them; yet may they not counterpoyse, or at least over-value that of *Pharsalia*, where, the *Romans*, amongst themselves, gave sound proofes of their courages unto their owne destruction: although *Julius Casars* part (with fewer numbers) was more to be admired above *Pompey*, in regard of his providence above him in this.

Section



Section 10.

A Maxime in militarie discipline, inferred to confirme Pompeys oversight at the battell of Pharsalia.

IT is a *maxime* of military discipline, that if thy enemy invade thee, by running upon thy Armie with force, in that case, to abide their charge in settled and sound station; if otherwayes, they budge not to flye upon them: for *Pompey* his Armie being composed of the flowre of the *Roman* youth; no question, but if hee had commanded them to give the charge, they, whose hot blood and rising spirits, had incensed and redoubled their courages, by the onset, had inforced *Casars* host (which although it was composed of old beaten souldiers, yet being so farre inferiour, as it was in numbers unto them) to a flight, so to avoide the swelling and furious onset: whereas, on the contrary, they were commanded to abide *Casars* charge: and thus by that attendance, their young and first fury being cooled and abated; withall, *Cesar* (as a well experienced Commander, enjoyned his people to invade these young blouds, imagining (as it came to passe) that being amorous youths, they had rather turne their faces than have them torne (howbeit these skars are rather the honourable badges of true valour, than hinderances or lets of love to a discreet mind) by which meanes, as *Pompey* lost the field, so did hee all hopes of redintegrating his losses againe, making his recourse unto the King of *Aegypt*, where by the way he was killed.

A maxime of military discipline.

Pompey his oversight at the battell of *Pharsalia*.



Section II.

That the French, what within their owne Countrey and abroad, have fought more battels of late times, than any other Nation; and of their successe in them.

The nearer our
owne times
writers are
more sparing
to write with-
out sure war-
rands.

BUT to leave *Greece* and *Roman* Histories, and to passe by the battels, whereof in them are plenty to be read: I will descend to the later Ages, where the liberty of Writers is some way better restrained from debording; and whereof the commemoration will bee more taking, and delightfull unto the Reader.

And to begin with the *French*; I finde, that they have given maniest battels within this later Age, both at home in their owne bowels, and abroad: and at home with strangers, though not with discredit, yet with small advantage.

More battels of
late amongst
the French,
than all
countries
beside.

For to take a survey, either of their battels with the English in *France*, or in *Italy*; either in *Lombardy* for *Millan*, or in, and about *Naples* with the *Spaniard*; we shall finde by their owne Writers, that few of them have beene fortunate: in so much, that beside the common losse in field, their Generals were either taken, or killed, both by the *English* and *Spanish*.

Indeed I will not say, but at some times their deeds have beene most worthy, both in the fights at *Giradada*, and *Turr*, which may counterpoise the losse of

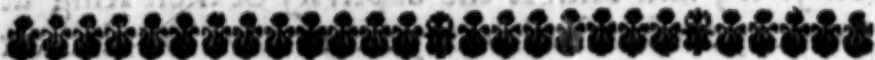
Caston

Gaston de Foix at *Ravenna*; the Duke of *Nemours* at *Cerisoles*; and almost the captivity of their King at *Pavie*: yet what shall we say: they have lost all their footing beyond the *Alpes*: whether by their misfortune, ill government, or the Heavens decree, which have bordered *France* in wth such unpassable marches, in a manner, that it may learne to live by it selfe without encroaching upon her neighbours.

As for their intestine battels againe; so many in so short space have not bin struck in any place throughout the world.

For albeit *Flanders* and *Holland*, have beene now for long time debated, betwixt the *Spaniards* and the *States*; in so farre, as it hath beene, *sedes belli*, and the publike Theatre whereon the Tragedies of bloudy *Mars* have beene acted unto the view of all Christendome, since the beginning of their troubles, and the reformation of Religion, as well as *France*: yet we shall scarce find in all their History of one set battell; for the story of *Newport* which comes the nearest unto one of any, was rather a successive fight, than a pitched field.

Section



Section. 12.

That emulation amongst the Princes in France, rather than Religion, was the cause of the many civill-warres there.

The Spaniard more slow and mature in their doings than the French.

VHether the procrastinating and long suffering humour of the *Spaniard*, with whom the *Hollanders* have to doe (wherein they exceed the *French*) whether their feare to hazard the undoubted losse of the whole Countries unto the parties overcome upon a doubtfull battell; or whether (like wise *Scipio*) they are loth to lose a souldier, be the cause of their never appointing set field, I know not: but I dare say, that there have beene more civill-wars and battels strooke within the bowels of *France*, since the reformation of Religion, there, than in all Christendome, for that or other causes whatsoever. The battell of *S. Dennis*, *Moncon tour*, *Turi*, *Iarnack*, *Contras*, *Arques*; besides, diverse others lesse remarkable may witnesse. Which argueth necessarily how hot and sudden the disposition of that people is. And how justly *Iulius Caesar* in his Commentaries (and with him divers others) have hit, when hee describeth the nature and humour of the ancient *Gaules*.

Neither must it be thought, that the zeale of Religion onely rouseth up this ferocity, on both sides, unto such bloody fights and battels. For other Countries about, have appeased all dissentions about Religion

gion with fewer fights, and lesse bloudshed at, least in open field, as who frequent their Histories may finde. And howsoever Religion was partly a motive unto it: yet it was sometimes used as a cloake to cover the emulous ambition of some great men: as that betwixt those illustrious Families of *Bourbon* and *Guyse*, both aspiring unto the Crowne, by the visible declining of the name of *Valois*, in the person of King *Henry* the third.

Emulation betwixt the house of *Guyse* and *Bourbon*, and not religion the cause of warres of *France*.

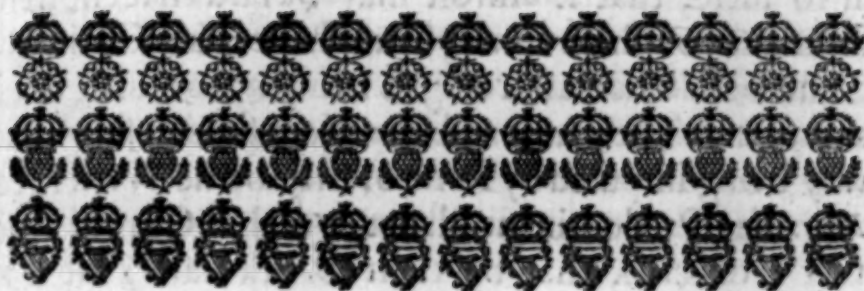
As for all the late battels fought in *Germany* and other places of Christendome, there being so copious and plentiful relations of them every where to bee had, I passe them by, and referre the Reader to them.

OF

gon with fewer lights, and less blazons, least in
open field, as who respect their histories may find.
And howsoever Religion was partly a motive unto
it, yet it was sometimes used as a cloak to cover
the ambitious ambition of some gentlemen: as that be-
twixt those illustrious Families of Nassau and Cay-
both springing unto the Crown, by the visible de-
sign of the name of Nassau, in the person of King Hen-
ry the third.

Translation be-
twixt the house
of Nassau and
Cay, and
the title of
Nassau.

As for all the late battles fought in Germany and
other places of Christendom, there being so cogi-
ous and plentiful relations of them every where:
besides, I passe them by, and relate the Reader to
them.



OF
VARIETIES
 THE THIRD BOOKE.

OF
DVELS AND
COMBATS.



As by Duels and Combats (under the false glosse of gaining, maintaining, or repairing of Honour and reputation) there hath beene more young, generous, and Noble blood spilt over Christendome, then by any other Pestilentiall Custome whatsoever; So, no Nation hath beene so universally, and so long infested with them, as France; in

France most
subject to Du-
els.

Combats au-
thorised.

in so farre, that it almost may be said that the first fountaine of them sprang from thence, all Christendome beside not affording so many memorable ones as it alone. Their heat and impatient sudden fury that way being imputed by some of their owne Writers to *Mars* the Predominant Planet over that Clime: And first I observe, that by their Salick Law Title 69. Duels were authorized, and that Law seconded by the *Gambetts* Law, as *Agobardus ad Ludouicum Imperatorem* hath it; and continued so (though not without some opposition till the reigne of *Henry 2.*



Sect. 1.

Of combats by Champions for Cleering of Queenes Honours: Combats betwixt Ladies; betwixt Churchmen; and betwixt Iudges: Combatants, rewarded by Kings their Spectators; and S. Almachius kild, for declaiming against Duels, &c.

*Lotharius try-
all of his wifes
Chastitie.*

*Champions in
Duell to cleere
Queenes Ho-
nours.*

Lotharius (saies *P. P. Nicolas* in his 5. Chapter :) desirous to make tryall of the Chastitie of his Wife *Teuberga* was advised by the Bishops to choose a Champion, and his wife another; which two were by simple Combats to resolve the Scruple: Their Queenes too had recourse to Duels, in choosing Champions to maintaine their Honours and cleere any imputations layd against them: for *Iudeth*, Wife to King *Lewis the Gentle*, being by him accused of having dishonoured his bed, by accompanying with *Bernard* his kinsman and Prince of the bloud, was purged

purged of that stain by *Bernards* entering the lists, and freely offering Combat to any that would maintaine that wrongfull quarrell. And their Ladies also, not Content to have their honours and their other quarrels maintained by their Champions, have themselves to publike view, within lists, body against body fought in single Combats, as *Petrus de Auriliaco* in his Title *de Duello*, affirmeth.

That Ladies
have fought
combats.

And not onely their Women, but their Churchmen also, were licensed to decide any debate of great consequence that had risen amongst them by Duell, whereof I will onely mention that out of *Goffridus Abbas Vindoci* in his 3. booke 38. Epistle. of *Rhenold Chesnell Clarke* of the Church of *Xanites*, who fought a Combat with one *Guilleaume* a Religious Monke of *Vandosme*. But more memorable is that of *Anselme Besse*, Churchman and Treasurer of the Church of *Laon*, who being accused of having robbed the Church treasury, of severall rich and precious pieces, and sold them to a Goldsmith of *Soissons*, who had deposed against him, obstinately denied the fact, and craved combate, which was granted; they fought, and the Goldsmith was overcome; notwithstanding these things were sold him by the Monke: yet (saith my Author) the Goldsmith for having violated his oath, which he had given unto the other, never to reveale the theft, was condignely punished.

Combats of
Church-men.

Nor have their Judges beene exempted from this triall by duell; for *Chopnius de Domanio*, Tit. 26. §. 15. telleth of one *Marfills* a Counsellor of the Parliament who, being accused by another of corruption or bribery, was dispensed withall by the authority of Par-

liament

Combats of
Judges and
Counsellors at
Law.

liament to challenge his accuser, and did fight with him in the quarrell.

Combats,
whercof Kings
have been spe-
ctators,

Combats re-
warded by
Kings.

S. Almatius
slaine for spea-
king against
combats.

Six score men
killed in com-
bats in one
voyage of K.
Lewis of Fran.

Moreover, *Petre d' Aurillac* declareth, that their Kings did not onely authorize Duels, but were oft-times eye-witnesses and spectators of them. *Charles* the 6. (saith *Frossard* in his 3. Tome) was present on *S. Thomas* day, behinde *S. Martines* in the fields at *Paris*, at the combate of *Iohn de Carrouges*, and *James Legris*, and from that time conferred a Pension on *Carrouges*: And *Charles* the 8. (saith *Ferronius*, lib. 1. Hist.) did behold *Zerbulo* and *La Lande* whilst they fought, and rewarded both, giving to *Zerbulo* 300. Crownes, and to *La Lande* 50. And of later dayes K. *Henry* the 2^d. was present at that of *Chastangueraye* against *Iarnack*; of which hereafter.

Nay, the natures of that people in former ages have beene so averse to have any custome, how pernicious so ever, abrogated, that it is recorded of S. *Almachius*, that for having declamed publikely against Duels and the frequency of them in his time, he was, by the obstinate and seditious multitude over-run, and violently put to death.

But not minding to fill up this Discourse with the many famous and memorable combats that have bin fought amongst themselves, and against strangers in that Nation; as that of *Peter Bajard* against *Don Alonzo de Sancto major*: Anno, 1503. Or that of the Earle of *Arguement*, against *Montmorancy* in the Isle of *Maisiers*; or that of *Delarges* against *Vaudrey*, Anno 1521. with many others: Or of later dayes, how in King *Lewes's* voyage towards *Limosine*, six score were killed in single combate; with as many or thereabouts in

in his voyage towards *Savoy*. I will only mention in stead of all two most memorable ones, the one in *France*, the other in *Spaine*; and first of the *French* in the following Section.



Section 2.

A recitall of two memorable duels, the one in France betwixt Monsieur de Creky, and Don Philippin: The other in Spaine betweene Pedro Torrello, and Ieronimo Anca, both of Arragon: in the presence of Charles the fifth.

THE *French* shalbe first inserted here, although latest acted, for it was but in the dayes of King *Henry* the 4th. surnamed the Great; set downe by *du Mathieu*, and thus briefly it is. In the warres betwixt the said King, and the Duke of *Savoy*, for the recovery of the *Marquisat* of *Saluces* usurped long before that time, during the time of the *French* divisions by the said Dukes, and now reclaimed by this King, as having bin formerly rent from his Crowne, although it lyeth in a manner within the *Savoyards* bosome: it fell out so, at the taking in of a little Towne there, that *Crekie* did vant to have got in that conflict * *Don Philippin's* skarfe: which words being conveighed to his eares, he forthwith challenged *Crekie* of a lye; and that so much the rather, for that at certaine other swaggerings, where *Philippin* his fortune was to be before this fatall fight; *Crekie* like-

K

wise

The quarrell,
a Commander
on the Kings
side.

* A princi-
pall man in
the Dukes par-
ty, and brother
to him.

The challenge

wife, had vented and vaunted, that hee had dipt his hand in the *Spaniards* bloud; which wrongs (at least so pretended by him) accumulated together, drove him (if the *French* History say right, for *Fides sit penes Authorem*) to undertake the challenge, yet not without the valorous Duke his brothers threatening instigation: the time, place, weapons, judges, and all, agreed upon, they fought courageously both: but yet so, that the *French* having the advantage of the Sun, which even then was tending towards the West, by good fortune, and it may be by the equity of the challenge (for *Perkins* holds Duels not to be *examens* of innocency) left the *Savaiard* dead upon the field:

The combat.

Comparison
of the *French*
and *Spaniard*,
Venetian and
Florentine.

The *Spanish* duell was more remarkable in its circumstance, howbeit inferiour in the dignity of the combatants, and in the event of their fight; for although it be proverbially spoken, that the *French* in single combat or duell, are better than the *Spaniard*, and the *Spaniard* in battels and greater numbers doe surpasse the *French*: even so in *Italy* I have oftentimes heard, that the *Florentine* alone is more wise, and subtle than the *Venetians*: but they againe in counsell are more wise and deliberate than the *Florentines*. In this combate the *Spaniards* gave very sound proofes both of their courage and daring. The discourse of it is at length, and in its punctuall circumstances set downe in their Countrey story, which I will briefly touch.

A duel betwixt
two *Spaniards*
granted by the
authority, and
fought in the
presence of the
Emperour
Charles the 5.

In the dayes of *Charles* the 5. that fortunate Prince, for the time both Emperour and King of *Spain*, there lived in his Court *Peter Torello*, & *Hierome Anca Arragonois*, both Gentlemen of note (for so they were called) and withall entire and loving *Comerades*: these

two

two on some occasion falling to contradictory termes, from words they fell so foule, that it came to a challenge, from challenge to a meeting, from that to fighting; in which combate, after some bouts, *Peter Torello* was overthrowne by the default of his Rapi-er, whicheither broke, or else was beaten out of the hilt by his Antagonists furious blowes; by whom he was forced instantly either to dye, or sue for life; who being put to that *extremity*, condescended to accept of his life; but conditionally, that on the faith of a Gentleman, hee should reveale that secret to none living, which he might doe the more trustily, seeing no other were witnesses to it, but more especially seeing it was not through lack of courage on his part, nor of daring, but rather by chance of warre. Things thus put up, they returne to Court, living together after their old fraternity, as if never such a thing had beene amongst them; never so much as a motion or whispering of it; till within a certaine space of time a report of *Torello* his overthrow burst out, which comming to his eare after it had beene blazed through the whole Court, he pondered with himselfe, that hee could not be avenged on his companions perfidiou-nesse by a private duell againe, whom hee perswaded himselfe was the onely revealer of his disgrace and that secret; (notwithstanding *Hierome Anca* certainly affirmed the discovery therof to be by a Neat-heard, who unknowne of them overheard and saw them) *Torello* therefore being set on revenge to repaire his disgrace, which he beleevved was whispered and talked of by every one, had recourse to the Emperour, and begged at his Majesties hands, that it might please

The occasion,
and quarrell.

Occasion, mo-
ving the chal-
lenger to peti-
tion a publike
combate.

Conditions
granted by the
Emperour
whereupon
they should
fight.

Ceremonies
observed in
this combat.

The event of
their fight.

him for the recovery of his reputation now in question, to grant him a publike combat with his enemy, who perfidiously against his plighted faith, had revealed the matter, whereof he made a particular rehearfall: whereunto the Emperour after many instant solicitations gave way, but with this restriction; that first, they should fight armed: next, that when hee should throw in betwixt them a golden rod, which at solemne times he bore in his hand, they should give over, and not fight to death, as in other combats: these conditions were accepted by both parties, the day and place appointed, where in the Emperours presence, and face of the whole Court, with great pompe and solemnity, the two combatants did appeare clothed; first, in their most sumptuous attire, and accompanied with their most honorable friends: from whence, after low and humble reverences done; first, to the Emperour, sitting there in his Chaire of state, next, to the Chancellor (whom the Story highly regardeth) they were conveighed every one to their own pavilion at the ends of the Carieer; from whence comming forth againe, armed at all peeces, and (as they say) *Cap a pe*, they re-entred the precinct of their appointed place; where after solemne oathes made, that no other quarrell brought them to that hazardous encounter, but the defence of their honour; they commenced that memorable duell to the admiration of their beholders, with uncertaine victory; till in the end, the Emperour throwing his golden rod betwixt them, approving the courage and proofes of both, caused them to be parted, though without great difficulty they could not be separated.

Sect.



Sect. 3.

How Combats may bee thought permissible : The relation of a Combat betwixt Iarnacke and Chastigneray, in the Presence of King Henry the second of France ; citations of the Canon law against combats : Example of a Combat where the innocent was killed : that the decision of all such questions whereupon Duells were permitted, ought to be left to God.

IN the former combats Spanish was more remarkable then the French ; that first it was authorized by an Emperour and then countenanced by him. Wherein if any would inferre, that by this I would seeme to authorize Duells ; hereafter the contrary shall appeare : But thus much I may say ; If any sort of Duels should be tolerated in a Common-wealth, I thinke that that which is performed after this manner (wherein as in his *Miles gloriosus*, *Plautus* speakes, *Pes pedi, dextra dextra, latus lateri opponitur*) it is more dispensable then otherwise to permit men to butcher one another ; true valour, strength, dexterity and courage being then put to the essay, although with the hazard of their lives, yet not with the infallible losse of any or both, as in other Combats.

What way
combats per-
missible if they
should be at all
suffered.

These two examples I have brought in out of the French and Spanish Histories, brieflier couched here then in their owne Countrey Registers, Where they are at length and in their smallest circumstances set downe.

Now as here I allow of the Spanish sort of Duells (if any way to be tolerated) so can I not but disapprove the French King *Henry* the second his admitting and permitting of a Duell, not betwixt two men of a privat estate, nor by themselves in private, neither for any remarkable injury done, by one to another; but in the face and presence of himselfe and Court in their shirts, and so to inevitable death of either, or both, and for nothing but a leger or slight French quarrell, as a *demani* betwixt two notable persons, of two illustrious houses, *Iarnak* and *Chastaigneray*; where the fortune of the fight favouring the weaker for the time, to wit *Iarnak*, sent his adversary, if not from the field to the grave, yet so sore wounded, that within few dayes thereafter he dyed.

I might have alleadged moe of former ages, but that the neerer our owne dayes things fall out, they bring with them the greater credit to the present times.

Charles the fifth his example may bee thought to be tolerable: and though by the constitutions or rather permissions of some Princes, Duells have beene tolerated, as particularly when the notoriousnesse of a fact (as of murther) can neither be proved by witnessses, nor oathes of parties, and such other legall wayes; which sort of proofes the *Civilians* call a vulgar sort of probation, as in the *Decretalls lib. 2. quest. 5. cap. consuluistis*, & *cap. De Monomachia*, is apparent. Neverthelesse, the civill lawes as well as the Canon, do absolutly condemne them, because say they, it is a fallacious prooffe, the order of nature favouring commonly the stronger above the innocent. As in the *Decretalls*

The Canon
Law gaine-saith
eth their permission, and
Why?

Decretalls cap. supra citato de purgatione vulgari, is manifest by a case propounded of two, who upon accusations of theft, challenged each other to Combat, where the stronger having overthrowne the weaker, was found neverthelesse guilty; for the goods in question were at last found in the Victors house.

Example
where in a Du-
ell the inno-
cent was killed

To say here; What shall a Prince doe when hee is importuned by one for Iustice of such or such a man, for this or the like crimes; but to referre it to a Monomachy or Duell, seeing other proofes faile?

I answer, that by such meanes both God and the King are tempted; for if God hath reserved to himselfe the discovery of what by all searching cannot be discovered, is not that an intolerable importunity, to pry or search any farther in that, but that the Magistrate (all legall proofes being used) doe absolve him, whom *secundum allegata & probata* hee findeth innocent, and refer to the all-seeing and all knowing God, the punishment of him who is guilty, seeing in his owne time he can by meanes unsearch'd by men, bring about a punishment on him, whom peradventure the civill Iudge hath absolved: for otherwise it should seeme, that we were suing after a miracle, by permitting a Combat for prooffe, as was used in *Linonia* or *Lapland* in like cases, as may bee seene in the aforesaid Chapter *De probatione Vulgari* in the *Decretalls*: for there saith the *Canonist*; If any crime such as that could not be proved, and that the accused or suspected, cryed that he was innocent, and so stood forth in the avouching of his innocency, hee was forced for the more and farther prooffe thereof, either bare footed to tread on hot yron, or else to wash his hands in hot boyling water.

We should rather referre to God the punishment of a misdeed, which by no legall meanes can be cleared, rather then to a fight.

For notwithstanding all the circumspection of Iudges in prescribing equality of armes, and all the objections which can be thought on, either for prescribing equall quarters to both, or to save both from such treachery and circumvention; Yet can neither of these caveats be so punctually and judiciously set downe, but that the one part may be weaker than the other: neither yet have we assurance, that God will ever show his justice in such Combats; because it is written, *Thou shalt not tempt the Lord thy God.*



Sect. 4.

Severall objections for the tolleration of Duells and Combats confuted; Cajetans opinion of Duells wherein also the lawfulnessse of Battells is allowed.

David his fight with Goliath should not serve for example, and Why?

IF it be said here, that *David* did fight in single Duel with **GOLIAH**; That maketh not against us for that was done by the instinct of the **HOLY Ghost**: Neither are all the deeds of the Saints to be obtruded as exemplary for all men, to imitate; they are rather to bee admired than followed: for then *Abraham* his going to sacrifice his beloved and only Sonne *Isaac*, might be an instance too for imitation. But with *Demosthenes* we should live by Lawes not examples, albeit examples are more moving at some times then lawes.

Cardinall Cajetan his permission, where and how?

I find indeed, that Cardinall *Cajetan* admits them; but upon two considerations; first, when two Armies are

are ready for the shocke and yet where the most equitable part hath the fewest forces, in that case saith he, the event of the battel may be referred to a Duell of one of both armies, for avoyding of greater bloodshed; for in that case, *si bellum sit licitum, quid ni & duellum?* Next when any private man accused of a crime whereof he is innocent, is neverthelesse borne downe by power of adverse parties, if then by the Magistrates authority (to whom he complainerh) a Duell be offered, to decide the question, in that case, hee admits these fights to bee permissible: for why (saith hee) if we may safely fight with a Rogue, who would rob us of our goods, why not with him who would doe so with our honour, it being alike to him, at least the odds not being great, whether he dye by his adversaries hand, or by the sword of the Magistrat, it being a lot of chance experimented in the person of *Jonas*.

As all the *Canonists*, save *Cajetan* only, in the causes and cases above-mentioned do disallow Duells, so the *Civilians* approve them not; for in the *F. de gladiatoribus. L. Constant.* it is said, that *Cruenta spectacula in otio civili non placent.* Then *Leo* and *Anthemius Titulo de Feriis. L. Dies festos* command, *ut lachrymosa spectacula ferarum tollantur.* Now if such sanguinolent and bloody shoves and baitings of Bores, Leopards, Bulls and Lions, either amongst themselves, or else of condemned persons with them, yea and sometimes of venturous fellowes to try their strength and daringnesse with them, were for these unnaturall fights prohibited, much more thinke I, should these of men one with other bee absolutely discharged.

Now

Solution of
certain Ob-
jections.

Now if it be objected here, that in the civill law, wee find the Emperours themselves, to have promised immunity and impunity to the gladiators, who either had vanquished their Commerad, or peradventure killed him in such fights, as *ad Aquiliam. L. Qua actione. §. Si quis*, is evident:

To that I answer, and not without the same Law.

That such killing when it did happen amongst these *Luētators* (which were men appointed to wrestle and fight together for sport to the people, who beheld them barter strokes, and exchange blowes in the bottome of the *Amphitheatre* called *Arena*, whilst they sate in security) was not *injuria causâ*, or by any premeditated malice, but only by meere accident without the deliberation of him, *qui intulit damnum*; whereas in these combats or Duells, they flye to it on intention and resolution, either to kill or to bee killed: and the intention judgeth our actions, not the events.

It is not a good
consequence,
seeing I refuse
Duells, there-
fore Battells
too.

Neither need I for this be reputed an *Anabaptist*, though I refute the lawfulnessse of duells, by the aforesaid reasons; as though I therefore denied the lawfulnessse of necessary Warres, because they are founded upon some apparent grounds of Scripture, for out of the same we have many Warrants more inforcing besides examples where the Lord of Hosts hath shewn his power and approbation in favouring of battels undertaken for his cause.

No more is it a
good conse-
quence, if wars
and Battels be
lawfull, there-
fore Combats
are.

To say *si bellum sit licitum, quidni & duellum?* if a War be lawfull, why not a Duell?

It followeth not, for howsoever *Majus* and *Minus* change not the species and kinds of things, as we say
in

in the Schooles, yet is there great discrepance betwixt the two; for battels are approved by the authoritie of God, nature and Nations; provided the causes bee lawfull and just, as *pro aris & focis*: for the other there are none at all; for *David* and *Goliath*, their fight carry no example for imitation: But if any Nations have tollerated them, it hath beene but such,

Quos sol obliqua non nisi luce videt.

Not the Greeks, Latins, *Assyrians*, *Aegyptians* and the like.



Sect. 5.

Cajetans reason for referring the event of Battels to Monomachie: Where also is inserted the story of the *Horatii* and *Curiatii*.

AS for the first condition admitted by *Cajetan* for Duells; which is, when two armies are ready to joyne, for preventing of greater bloud-shed, he averreth that it is better to referte the event of a battell to a Monomachy of two, then otherwise to hazard all:

There is nothing more memorable in all the Roman History then the experience of this, in that notable not so much Monomachy as *Polymachy* of three brethren, Romans, called *Horatii*, against other three brethren of the *Alban* side called *Curiatii*, and those partly of kinne and alliance, to which the decision of the victory of either of the armies, by the Roman and

A Notable
Combat of 3.
Brethren
Romans a-
gainst so many
Albans.

Alban

Alban Kings with their whole armies consent was concredited.

Their fight.

Those sixe in the middle of both Armies valourously fighting for their owne private lives and credit, their countreys fame and liberty, having so glorious a Theatre to act so important and tragicall a combat upon, did so bravely on both sides, that the panting armies were in no lesse anxiety for the event of their tryalls, then the perplexed combatants themselves: at length the victory, which seemed dubiously disposed in favours of either side begun to incline to the *Albans* first, and that by the death of two of the Roman brethren; whereupon the Roman Survaioir counterfeits to fly, and so was pursued by the other three; but turning to the formost of his pursuers he set so furiously upon him that hee forthwith killed him; then turning to the second with like fury rewarded him after the same manner: Now the Survaioir of the *Curiatii* being brother in Law to this victorious Roman, received the same lot that his brothers had from his valorous hands, which afterwards caused the death of his owne Sister, the last killed *Albans* Spouse, as in the Roman Historie may be read at large.

Section



Section 6.

That Kings and Generals of Armies, for saving of the greater bloodshed of their Souldiers, have fought single for victories. Examples of both. A quarrell and challenge betwixt the Emperour Charles the fifth, and Francis the first, King of France: how it tooke no effect.

WHEN I say then, that neither the *Greeks* nor *Romans* admitted single combats, it must bee understood, except in time of just warres, in which either one or moe souldiers may single out a combate with one of the adverse party, with permission of the Generall, or else one Generall with another for saving the blood-shed of many; as *Cassius* and *Marcellus* did each of them fight with their adverse Generals: yea, and sometimes Kings one against another have done so for sparing the blood of their subjects; As *Alexander* the great did combate single with *Porus* King of the *Indians*, *Godfrey* of *Bovillon*, against *Arnold* King of the *Saxons*; *Romulus*, with one of the Kings of *Latium*; and *Hundick* King of *Saxony*, with a King of *Denmarke*; and of fresher memory, *Charles* of *Anjou* challenged *Peter* of *Arragon*, to duell; where at *Burdeaux* in *Aquitany*, before the Prince of *Wales*, for the time, with swords, they should have tried the right and claime that they both pretended to the Crowne of *Naples*, but they met not just on the day and place appointed; whose default it was, their diverse

Some Grecians, Roman, Hunnish, Danish Kings have combated with others for saving much blood. Challenge, but no meeting nor fight, betwixt the Prince of Arragon, and Charles of Anjou.

Challenge, be-
twixt Charles
the 5. and the
French King,
Francis.

verse Histories agree not: like as the Histories of *France* and *Spaine* dissent upon the challenge given in a manner, and accepted by *Charles* the 5th. Emperour for the time, and King of *Spaine*, with *Francis* the first of that name, King of *France*: albeit *Guiccardin* neutral to both; and reputed as another *Cornelius Tacitus* for his impartiality in his History of *Italy*, following forth the circumstances of the battell at *Pavie* sheweth at length, how the *French* King *Francis* was beaten there, and taken prisoner by the Viceroy of *Naples*, Generall of the Imperiall forces, from whence by sea he was conveighed into *Spaine*: and how after a long and strait imprisonment, he was put to so high and invaluable rancome as lightly hath not beene heard of: moreover, the quitting of the best branch of the patrimony of his Crowne, the rites, titles and interests he pretended to the Kingdome of *Naples*, the Dutchy of *Milan*, for the which then they had beene a swaggering; His rights and soveraignties of *Artois*, *Brabant*, *Hainault*, and so forth; yea, to the mariage of *Eleonora* Widow of the King of *Portingall* and sister to the said Emperour, a rancome which he was as unwilling to pay as agree to any of the former Articles, her favour being as it was unfavourable to him, who otherwise was an amorous Prince; and although the distressed King subscribed to all, and confirmed the Articles with his promise, yet it was so, that often he protested even there (neither did he smother it) that promise what he would, performe them he could not, neither legally might he. So that being set at liberty, his two sonnes accepted in hostage for him, and returned home; he was charged by the Emperour for
the



Section 7.

A discourse of a combate where thirteene French Knights fought against so many Italians : wherein the French were overcome ; some observations thereupon.

Combate of 13
French knights
against so many
Italians.

THE *Italian* and *French* Histories agree not upon the verity of that, not so much monomachy as polymachy of thirteene *French* Cavaliers against so many *Italian*. And because it is counted as a very memorable thing in their History, I shall the briefliest I may, touch it, to give the Reader content.

The quarrell
and challenge.

At *Barletta* in the kingdome of *Naples* where the *French* and *Spanish* forces lay debating by sword, the right that either King claimed to that Crowne; by their Generals for the time, *Lantrek* the *French*, and *Consalvo Ferrandes*, the *Spaniard* : it fell out so, that at *Kubos* a Village of no great importance, a *French* troope had got the foile by an *Italian* one, for the time, under the pay of the *Spaniard* ; of which severall Companies, certaine souldiers by hazard ranne encountring together by their contumelious and reproachfull objecting of one anothers defects: the *Italians* to the *French* their vaine-glorious brags, and that in effect their courage was not so good. The *French* to them, their subdolous and crafty tricks by which they fight more fortunately than stoutly. They brought the matter to such a height, that thirteene of the one side were to fight on Horsebacke
against

against thirteene of the other, the field to bee Career rayled about on the side, but not at the two passages, in the middle of both Armies; the quarrell was for the maintenance of the honour of their countreys; and it was agreed upon, that the victors should not only have a certaine summe of Gold, but the ran-some also of their captiv'd Prisoners.

As soone as they had covenanted, they met, they fight; the French are beaten, some killed, others taken. The conditions agreed upon.

Which notable overthrow albeit *Guiccardine lib. 5.* of his History of Italy attributeth absolutely to the valour of his country-men above the French; and penneth it in all circumstances with the exhortatory Orations of their Generalls before the fight and the triumphs after: yet the French in their bookes, and with them *Sabellicus* also an *Italian. lib. 2. Aenead. XI.* imputeth it rather to the coufening subtilties of the *Italians* then otherwise, to their sole courage, because (say they) and *Sabellicus* with them, it was condescended upon, that if any horse-man that fallied should transgresse the precinct of the Career through error or un-skilfulnes, that he shold be held as dead, neither thereafter should be admitted to reenter the list to help his fellowes; by which meanes the *Italians* knowing the eagernes, heat, and impatiency of the French, did plant themselves within the centre of the camp, without budging, and attend the French charge from a little distance within the limit of the Career; where wisely if they had remained as they were placed, and not precipitated the charge, they had apparantly woon that field.



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The French then whose charge is ever furious, and then more than ever, let loose so fiercely upon them, that five of their side and but two *Italians* transgressed the bounds; who not being able to wheele and raine about their Horses againe, by that meanes lost the victorie, in the sight of the panting and votary Armies.

Now albeit in this so conspicuous and ominous combat the French were beaten, neverthelesse we find commonly, that one for one the French surpasse the Spaniard, although in companies they surmount them; and in this same fight although the French had the worse, yet by all likelihood, if their Horses had not proved their losse, they should have borne away that dayes credit.

Observation
upon this combat.

Alwayes as in this heat of an impatient nature, wee communicate with the French, and it may bee in our single combats too;

So our neighbour the worthy English may justly bee said to participate with the long patience, mature and ripe deliberatnes of the *Italian* and *Spaniard*: consequently more capable to maintaine and keepe well, than with the other to conquer and suddenly to subdue.

Section



Sect. 8.

A memorable Polymachie betwixt two kindreds in the High-lands of Scotland (betwixt whom there had beene a long and mortall enmity) for the totall extirpation of the one of them; fought before King Robert the second, at Perth in Scotland.

I Were ingrateful to my country to passe here with silence, that true Polymachy, recorded of in our Histories, registred there to posterity, as a thing memorable, which befell in the dayes and under the Reigne of King Robert the second, if I rightly remember.

A memorable combat betwixt two powerfull Clans & parties of our own nation debated of Perth.

This brave Prince being often molested with the mutuall complaints of two powerfull Clans or Surnames in the High-lands where his Majesties judiciaall power could but hardly and with many incumbrances execute his authority upon the parties offenders on both sides.

After their mutuall supplications given in, that they might at one time both rid his Majesty of molestation, themselves and their successors of the perpetuall feare wherein they dayly were, for their Wives, children, goods, and Cattell; by one open fight, where all of either of these names should be on both sides.

The King giving way to their Petition, the day and place was appointed, it fell out so, that there were one fewer on the one side than on the

The conditions accepted and agreed upon.

other; where the generosity of the party having the advantage of the supernumerary man, did appear in so farre that they refused to fight with the advantage of one more, neither yet could any of them be induced to lye by to make them equall, all being desirous to bee equall sharers of the common fortune: which controversie a Saddler of the City of *Perth* where the Combat was fought perceiving; least the King, Court and Country which were met (to see so famous a spectacle) should be disappointed, did offer for pay to make up the odde man, and was observed by all to doe so well for his owne hand, that when all the rest were either killed in the field, or else with terrible and deadly wounds left so (it being one of the most bloody butcheries of so many as is seldome read of) he alone or else with few more escaped, and that by swimming the River of *Tey*. Howsoever France in the dayes of *KING Henry* the third and fourth, was so overspread with the blood of Gentlemen killed in Duells, which amounted to such a number (notwithstanding all the Kings edicts to the contrary) that almost they could have made up an army, and that Duells came to such a height, that none was reputed a brave fellow except he had killed a man as they said: Yet finde I none so remarkable as that combat betwixt the Duke of Savoy his bastard brother and the Chevalier *Creký*, the time of the Wars betwixt King *Henry* the 4th. and the said Duke, for the Marquissate of *Saluces*, of which before.

Section.



Section 9.

A Combat appointed by two French Barons, the one of Gasconie, the other of Poictou, which was taken up of their own accord in the field: The end of this Title.

NOW to end this discourse: *Exemplum alios fortasse nepotes instruet.*

In my time I remember at the Court of France an ancient *Gascon* Baron and a *Poictouvin* a man of his owne coate, but younger, falling to contradictory termes for a naughty matter, because in the Kings house they durst not put hand to their swords, did agree to meet elsewhere: time place and armes are designed; the *Gascon* that same morning betimes calling on his page, commands him to provide a bottle of Wine and to have it in readinesse at the place appointed, before hee came: where he himselfe following and presently espying his adversary, both being demounted, and in their shirts, before they began to lye at their guard, in these or the like termes the Elder bespake the younger.

That I as the Elder doe take upon me to speake first, impute it not to any presumption I have of my worth, but to the priority of my yeares. Wee reade in the Roman History, that two of their Consulls who before had bin at mortall enmity and variance, going together with their Armies against the enemy, being a pretty way from the City, the elder should say to the younger, Camerad, seeing we goe together on a public like

An Exemplary
Combat be-
twixt two
French Barons,

like charge, in conjunct offices, let us lay downe all former grudges under this stone, now if thou please, at our returne, lift thou it up againe and reassume them : you may advise ; but for the present I thinke this best, which was agreed unto to the great contentment of the younger.

So say I to thee, if it please thee for so petty and frivolous a quarrell, that wee expose our lives and estates to the hazard of a doubtfull fight and of a variable fortune, I will not decline it : For as none doubteth of your courage ; So I trust, that none dare call mine in question ; so then if you list Cavalier, with the worthy Roman, let us bury in this Boule of wine our yesternights rash words : so we shal procure *Gods* blessing upon our soules and bodies, and our Prince his favour by our good examples to his quarrelling courtiers ; and withall indissolubly tye our loves together for ever, without any disparagement of our credit or reputation ; which being accepted by the younger, and related to the King, they were by him in presence of the whole Court condignely prayesed, as most due-ly they deserved.

Now albeit it be not of those or the like voluntary duels I treat of here, but of these which are tolerated by permission of the Prince or Magistrate for the eschewing of murther & greater blood-shed in the common-wealth, upon apparent coniect res of wrongs received, yet I thought it not altogether impertinent to insert this story. Now for the other. Although some have permitted them, as of old *Fraton* King of *Denmarke*, and are yet tolerated in *Muscovia* : yet we finde that *Rhotaris* King of *Lombardy*, absolutely discharged

chargeth them: and although his successor for the inconvenience which thereafter ensued licensed them againe, yet hee protested that it was against his will and conscience: and as these good Kings inhibited them; so, many of the French Kings, as *Philip le bel*, *Lewis* the 9th. *Charles* the 9th. King *Henries* 3^d. and 4th. and many moe of the best governed Commonwealths have done the like. Which maketh mee admire why *Bodin* in his 7. Chapter of his 4. Booke of *Republick*, giveth way to their toleration; they being both repugnant to the Law of God, and contrary to the Civill and Canon Lawes, and the constitutions of best governed Kingdomes. Indeed, the said *Bodin*, admits them onely to be permissible, when legall proofes are wanting, provided, that they be only for matter of honor, not wealth; and consequently among persons honourable, for the preventing of further blood-shed, averting of kinsfolkes murthers, and such like evils w^{ch} might ensue: to which if he had subjoy-
ned *Charles* the 5th. his condition of fighting armed, I thinke his reasons might have beene more passable.

But however in elder times, duels were tolerated by certaine Kings, which by appearance, the necessity of those times required; as common Stewes were for elchewing of greater inconveniencies; yet they being practises so ill-grounded, so unnaturall, and so farre both against the Lawes of God, and Man; Succeeding Kings (in every Nation almost) have enacted most strict Lawes against them, with most exemplary punishments, to be executed on the rash infringers of them: all which, being well knowne every where, were superfluous to be inserted in this small Treatise.



A

TREATISE OF DEATH

And of diverse Orders and Ceremo-
nies of Burials.

Section I.

*The remembrance of death requisite in all men : Ceremo-
nies for the remembrance of it; some documents against
the feare of it : what death Iulius Cæsar wished : of
Autocides : of selfe-murtherers, &c.*

TH E R E is nothing whereof a Christian
should be more mindefull than of death.
The *Ethnickes* that wanted the true
consolation which a beleeving and faith-
full Christian hath, had nothing more
frequent in their mouthes than Death : The Poets are
full of these passages,

vivi

Vive memor, quàm sis avi brevis---

Nascentes morimur, mors redi viva brevis.

All things we see serves to refresh our memories of death and mortality.

The documents of all the old Philosophers tendeth to this chiefly, not to feare death.

Burials and tombs in most conspicuous places created for that cause.

Especially Horace, with Tibullus, Catullus, Propertius, Seneca Tragædus, Persius, Iuvenall, Claudian, Ovid, Lucianus, and the rest; whereof to make mention, were to fill up a little Volume: there is nothing almost under the heavens but may serve man as a memoriall thereof; the Sunne setterh at evening, the day giveth place to the night; Summer, to Winter; infancy to childhood; that to youth, it to man-hood; this againe to decrepit old age: whence it may be inferred, that the best fruits we can reap of all our studies, yea, chiefly of Philosophy, are to prepare us for this death: neither almost to any other end tend all their documents, than to live with pleasure in reason here, & then to dye in patience, no wayes dismayd at the approach of death, because of its inevitableness, of our obedience to the Law of Nature, of the examples of al Ages, sexes and conditions of men to this houre, who have gone before us: so that the principall aime of vertue whereof they made such account, was to induce & prepare all that have beene, are, or shall succeed, to a patient acceptance, or rather a contempt of it, that we might passe our lives more peaceably here; which otherwise by the perpetuall feare of it, would be a never-dying life.

For this cause, it should seeme, the Ancients, did institute Graves, Monuments, and Tombes, to be either in the Churches, or Church-yards adjoyning thereunto, as in the most conspicuous and usuall places where the living frequented most. I cannot but wonder, that what the Philosophers thought fit continually

tinually to bee thought on, *Iulius Caesar* should wish to come upon him suddenly and at unawares. Histories relate, that while some Philosophers were reasoning before him, What sort of death was best; some alledging one kinde, and some another; He maintained that a sudden and unfore-seene death, was the best: for howsoever unto a man of his high estate and profession, it might seeme a word dispensable; yet to a Christian who is learned to say, *A morte subita & improvisa libera me Domine*, it cannot so well be allowed: who as he should not wish a death unfore-seene, neither yet be unprepared at the sudden aproach of it; so should he not by any meanes either accelerate or wish it, thereby to bee rid out of any incomberances that may befall.

Iulius Caesar's
his death
which hee
wished, not to
be allowed of
by a Christian.

Nec metuit mortem bene conscia vita---

Nec optat---

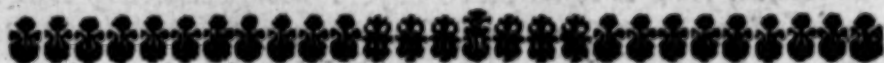
For as Saint *Augustine* reasons well against such Autocides and selfe murtherers, it is rather a token of pusillanimity and lacke of courage in them, than otherwayes a marke of true resolution to doe so; seeing they had not the daring to abide the dint of adversities which threatned them.

S. Augustine
reputeth it a
token rather of
pusillanimity
to put hand on
our selves,
than of courage.

Let us all remember to implore in our daily prayers, our Makers assistance from above, to aide us in that last houre: for my owne part, I thinke it one of the best fruits of my studies or travels, to be ever arming my selfe against it: and as in my morning and evening prayers I call for peace of conscience, in the assurance of my reconciliation with my God; and for peace on Earth, for his blessing upon my children, his favour upon my King and Countrey: so more specially

My usuall
prayer.

ally for the favourable assistance of the Holy Ghost the comforter to assist me then; that neither the terror of a present death may affright me, nor my trust and confidence breed in mee presumption, nor my feare, despaire; but there being a sweet harmony betwixt my soule and my God, I may lay downe my life, in hope to re-assume it againe for ever.



Section 2.

That Christians ought not to feare death, as the Ethnicks did. All things, save man, keepe their constant course. The uncertainty of mans life.

The ancients
for all their
good injuncti-
ons, yet feared
it.

IT is true, that the consideration of death, which of all terrible things is most terrible, as being the partition of the soule and body, and so the destruction of this structure, was the cause, why divers of the Ancients fearing almost even to name it, were wont to say in stead of (he is dead) he sleepes, he hath left off to be; hee is gone downe to the lower parts of the earth,

---hunc ferreus urget

Somnus, in aeternam clauduntur lumina noctem.

Or *desiit esse*, or *transiit ad manes*, and so forth; the reason being, that few or none of them had the full knowledge, much lesse the assurance of the enjoying these pleasures after this life past, which we Christians being taught at a better schoole, have: wherefore as well learned disciples of so worthy a master; let us learne

learne not only to name it, but stedfastly to abide the approach, the frowne and dint of it.

In me si lapsus labatur orbis...

---impavidum ferient ruinas

Remembring our selves, that howsoever soule and body be severed for a season, and that the body lye companion with them that sleep in the dust; yet that they shal conjoyne againe in the glorious resurrection to possesse those joyes unknowne to many of the Ancients, which our Lord and Master hath purchased to us by his death: remembring that howsoever wee should live to the fulnesse of yeares, that wee shall see no more, even unto the last date of our dayes, than a boy of ten or fiftene yeeres: For the seasons of the Yeare, the Dayes, and Nights, the Seas, Sun, Moone, and Starres, Plants, Herbes, yea, Beasts themselves, &c. keepe a constant course, which in a perpetuall revolution were set: and if so be that in these any change be, then bee sure it is a foretoken of Gods kindled wrath against us. For the Heathen Astronomer, when the Sunne did eclipse at the time of our Lords passion, could well say, That either the God of Nature was suffering, or else the frame of the world was to dissolve, the eye of all things suffering such a deliquie: now if the elder see any thing other than the younger, be sure it is not in the nature and course of things above spoken, which in perpetuall revolution do observe the course prescribed unto them by their Maker: But in the persons of men, which pointeth out unto us the frailty of their estates; and even of them also (if we remarke well) we shall finde more who have died within thirty or thirty five yeeres of Age, than

Not to be
afraid of
death, and
why?

All things ex-
cept man keepe
their constant
course.

If change be in
things, a token
of Gods wrath.

past

past it : But death being the common subject of our preachers especially in their funerall Sermons, I passe it over as their peculiar Theme, and according to my first purpose doe hasten to the divers sorts of Burialls.



Sect. 3.

In what reverence the interring of the dead was amongst the Ancients; Of Alexander; Of Sylla: How the People of Vraba did use their dead; Customes of Finland, Lapland, Greece and other places, concerning burialls.

The Antiquity of interring the dead.

AND first for the Antiquity of interring of the dead, as Writers doe abound in their testimonies, that even amongst enemies in the hottest of their hostility and Wars, Truces were granted for burying of the dead; so particularly in the Word of God we have warrant out of the *Macchabees*, that although there were not positive lawes of Nations and Countries for this effect, Nature seemes to have ingraued it in the hearts of all; thus *Palinurus* case in *Virgill* is regrated, that he wanted the honour of buriall, for having made ship-wracke; thus the Poet deploareth his losse.

*Heu nimium Cælo & Pelago confise sereno,
Nudus in ignota Palinure jacebis arena.*

The Old Roman Emperors respect had thereunto.

What reverence and regard the Roman Emperors have had unto it in their lawes and statutes in *Iustini-*

ANS

ans workes may be seene plentifully, and especially in one Title expressed by it selfe, *De non violando Sepulchro.*

Alexander the great having discovered *Achilles* Tombe in Greece overgrowne with brambles and briars, so honoured it, that being crowned with a Garland of Lawrell and Cyprus, he carowed so many full bowles of Wine to his memory, untill he had almost lost his owne.

Alexander of Macedon daunted about *Achilles* tombe.

So did *Tullius Cicero* for the time Questor, send into *Cicilie* to readorne *Archimedes* Tombe, it being almost obscured with thornes and brambles.

Contrariwise to this, *Sylla* his cruelty and inhumane barbarity against the dead bodyes of his enemys, is yet registred in the records of his Country; for that he (to be avenged upon his enemies being dead, whom alive he could not come at) caused to disinterr the halfe putrified carcases whereon he trampled with his Horses; and being fealous of being so served after his death, ordained his body to bee cast into *Tyber*, and caused to divert the Rivers course, so to disappoint all who should search after it.

Sylla his cruelty against burials remarked in Histories.

The like I find done by a certaine Pope, who caused to carry about with him the Corps of some Cardinalls in *Skeletons*, upon Mules ever before him, to be avenged of them, for that either they had crossed his election, or had conspired against him; whereupon the Author,

Septem pralati Papa iubente pralati, &c.

Even the most barbarous Nations, who otherwayes wanted all sort of humanity and civility, have had respect to this. For I finde in *Peter Martyr* decads

The memory
they carry to
the dead, in
Fraba, and the
way how they
use the Corps.

The manner of
burialls obser-
ved in Find-
land and Lap-
land.

cads touching the Historie of the West Indies in *Fraba* and other parts thereabout, how they doe dry (as we doe fishes) the bodyes of their dead, which there- after they hang up round about the Walls of their inner roomes, adorning their heads, shoulders, and upper lips with Gold and Pearle: And *Ortelius* in his *Cosmographie*, speaking of Find-land, or Lapland, (which he calls *Livonia*) where there is no Religion almost at all, (because after the manner of the Hea- then they worship the Sunne, Moone and Serpents, &c.) I find (I say) that when any one of great esteeme dieth, his friends sit round about his corps laid on the earth, but not yet covered with any mould, and make good cheere, and drinke to his farewell; and putting the Cuppes in his hand, as if he could pledge them, they quasse about a long time; in end, they lay him in the grave with store of meate, and drinke by him, and put a peece of money in his mouth, and a sharpe Pole-axe fast by him: then they shout aloud in his eares, and give him in Commission, that when he shall come to the other world whither they had vi- tualled him, and given him mony to defray his charges, that he faile not whensoever he meete with any Dutch man, to correct him, as well as they had thrall- ed him and theirs in this world: which custome (but after a more solemne manner and sumptuous.) they of *China*, *Cathay*, and *Tartarie* keepe almost in all points.

The like wherof that same Author observeth done in *Terneffare* a Citie of the East Indies, but not to a like enemy: In Greece, yet (as of old) at least in such parts of it as are under the Turkish Empyre; when- soever

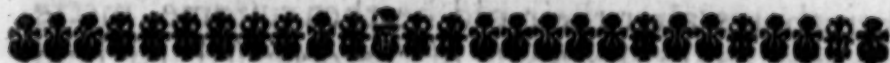
soever any remarkable person dieth, all the women thereabouts after their old heathen custome, meete together about the house of the deceased and there choosing the lowdest and shrillest voices to beginne, betimes in the morning they make lamentable howlings and cryes; weeping and tearing the haire from their heads, beating their teats and breasts, with their nailes, defacing their cheekes and faces, they conduct him to his grave singing by the way his praises, and recounting what memorable things he had done in his life. Which custome *Aëtius* an ancient Historian of our Country observeth to have beene used of Old amongst our British, and yet in our Highlands is observed: The Poets in their *Luctus & nenia* make mention of this and the like, as *Ovid*, *Horace*, *Juvenall*, *Catullus*, *Tibullus*, *Propertius*; amongst the Greekes, *Sophocles*, *Musaeus*, *Aristophanes*, *Phocyllides* and the rest; whereof *Ennius*, speaking of himselfe.

That same sort
observed of
old in this
same Country,
and yet in cer-
taine parts of
our Highlands.

Nemo me lachrymis decoret, nec funera fletu

Faxit, Cur? voluto vivus per ora virum.

M Section.



Sect. 4.

Other severall Customes of interring the Dead amongst Egyptians, Romans, and Indians; that the manner of Christian Interrements are preferable to all other.

NOW what hath beene the Curiosity of the Egyptians for the keeping of their dead, their Momies can testifie, where the whole and intyre bodyes of some of their Princes and great men were to bee seene of late, who died many thousand yeares agoe; whereof who pleaseth to reade may consult *Diodorus Siculus*, *Ammianus Marcellinus*, *Strabo*, *Herodotus* and others: the Athenians, and after their example the Salaminians (saith *Sabellicus. lib. 5. Aeneid. 2.*) used to interre their dead with their faces turned to the Sunne setting, not to the rising, with the Megarians; and apparently *Catullus* was of their opinion when he said, *Nobis cum semel occidit brevis lux, nox perpetua una dormienda est.*

The Egyptian burials and their Momies most remarkable.

Two sorts of interring the dead most remarkable.

The Romans burned & consumed their ashes.

But of the severall fashions of burying the dead I finde two most remarkable; the one of some Greeks and Romans, and not used but by those of the better sort, which was in burning the Corps of the deceased after this manner; There was either an Eagle or some other great fowle tyed unto the top of the Pyramide of Wood wherein the dead body lay; This Pyramide being kindled by some of the most intire friends of the

the deceased, amongst the cloud of smoke the Fowle being untied which was tied before, was scene to flutter and flye away, which by the Spectators wastaken to be the soule of the deceased flying to Heaven; the Ashes then of this burnt body they collected and kept in an Urne, and of this the Poets almost every where make mention.

The other was the Indians in eating the dead bodies of their Parents, and friends, as they did in ire to those of their foes, thinking that they could give them no more honorable Sepulchre, abhorring the others burning into ashes as a thing unnaturall; which might well be scene at the time that *Alexander* had conquered them; for he willed both Greekes and Indians to doe alike, but they upon no condition would condescend to that, the power of custome being so strong, as it was impossible for any Novations (though never so good) to alter it.

The Indians againe did eat their dead as thinking their bellies a honorable sepulchre for them.

Amongst all fashions above rehearsed, I think that of our Christian interments to be most consonant to nature, seeing of earth we are, and that to it we must returne againe: As for the Greekes howling, weeping, renting their cloathes, haire, and faces, it seemeth that Saint *Augustine* in his worke *De cura pro mortuis habenda*, ayimed at them; for in that whole worke, I perceive nothing that maketh much for praying for them, but chiefly he willeth all men to moderate extraordinary Griefes mournings and howlings for them, seeing they rest from their labours; and his conclusion is good, that if prayers for the dead be not meritorious for them, yet at least that they are some way comfortable for the living; *Si non subsidia mor-*

tiurum (saith hee) *tamen solatia sunt viventium*: Indeede I will not deny but that Father and others also in their writings allow prayer for the dead; as *Peter Martyr, Vermillius* also in his *loco. 9. lib. 3.* in the Title *De Purgatorio*, denyeth it not, but onely he refuseth such prayers to have beene subsidiary or helpfull to them, but rather congratatorie, for that they were released from all their miseries; which he instanceth by the funerall Oration of Saint *Ambrose* upon the deaths of the Emperors, *Theodosius* and *Valentinian*, where there is no mention of praying for their soules to ease or shorten their paines in Purgatory.



Section 5.

That the Church of Rome reapeth great commodity by their funerall ceremonies, as by their bells, Cymballs, Torches, processions of order and the rest: silent obsequies condemned: a story of a woman whose Ghost haunted her Husband and family after her death; and the cause thereof.

NOW for all this, as there is nothing whereby the Church of Rome reapes more commodity then by their prayers for the dead; for it is called, the Friers kitchen; So it is, there is nothing wherein their pompous solemnities and their devotion appeareth more than in their accompanying their dead to the grave, with the sound of Bells and Cymballs, Tapers, Torches, prayers, musicke, Church Ornaments,

Ornaments, solemne processions of the fraternities, and not without contention of precedence of orders: all which ceremonyes as they bred a kinde of pious compassion in the beholders, So it begetteth a manner of content to their eyes and eares; But our silent and dumbe obsequies, as wanting Bells and other noyse, doth not so take the Spectators and such as accompany them.

The dumbe & silent obsequies of our burials condemned.

Now I will close this Title with one observation which the Poets remarke; who affirme that the spirits and Manes of them who want their due burials, wander here and there in Ghostly apparitions untill their bones be interred.

*Nec ripas datur horrendas, aut nigra fluentia
Transportare prius, quam sedibus ossa quierunt.*

For the punishment of the neglect of it may appeare in one of our Northern Countries, cald *Lawder*; who on her death-bed had enjoyned her husband to bury her in the Church-yard, which if hee did not, shee threatned that her Ghost would haunt him after her death: but the plague then raging in those parts, and he fearing that if she were publikely buried, that all would have suspected her to have died of the plague, whereupon every one would have deserted him, and so lest hee should bee left succourlesse, he resolved to conceale her death, and buried her in a corner of his Garden; but thereafter, this womans ghost, I say, did so incessantly both haunt and affright, both him, his children, and family, that there was no resting for them at any time; till by the advise of the Clergy she was taken up againe and buried, where she desired to be in her life-time; which being done, both she and they rested.

A History of a Gentlewoman, who for not being interred in the Church-yard molested her family, by her ghost, while she was disinterred, and according as shee desired, was buried.

by them. doth not take the spectators and such as accompany, as wanting bells and other novelties, but our sight and of content to their eyes and ears; so it pageth in a manner competition in the beholders, all which ceremonies as they find a kind of piety and not without conviction of precedence of orders: ornaments, looking processions of the fraternities,

Now I will tell this tale with one observation which the Poet remarks, who states that the first and last of them who want their due burial, wander here and there in Ghostly apparitions until their bones be interred.

Transcript of the original text, which is written upside down in the image:

Transcript of the original text, which is written upside down in the image.

For the punishment of the neglect of it may appear in one of our Northern Counties, said I asked; who our parish-bed had enjoyed her husband to bury in the Church-yard, which it had not, she informed that her Ghost would haunt him after her death: but the plague then raging in those parts, and the fearing that if she were publicly buried, that all would have suspected her to have died of the plague, whereupon every one would have deserted him, and to keep her from being so, he had been obliged to conceal her death, and buried her in a corner of his Garden; but thereafter, this woman's Ghost, I say, did incessantly both haunt and afflict, both him, his children, and family, that there was no resting for them at any time; till by the advice of the Clergy he was taken up again, and buried, where she desired to be in her life-time; which being done, both she and they rested.

A
TREATISE OF
MENTALL-RESERVATION;
 And of no faith to bee kept unto
Hereticks.

Section 1.

The decree of the Councell of Constance, That no faith is to be kept with hereticks and enemies, is agitated: the commendation of peace: that a necessary and iust war is to be preferred to it: A story of Augustus Caesar.



begin this rhapsodicall Treatise with the famous act of the Councel of *Constance*, wherein it was decreed, That no faith was to bee kept unto Hereticks and Enemies of the faith, by vertue whereof, as *Vladiſlaus* King of *Hungary* violated the peace concluded betwixt him and *Amurath* (for the time great Turk) at the instigation and solici-
 M 4 tation

tation of *Cardinall Iulian* sent to him from Rome for that purpose, to the great prejudice of the civill Christian estate, and aggrandizing of theirs; So by vertue of the same the Martyrizing of Iohn *Husse* and *Hierome* of *Prague* although under trust and safe conduct granted by the good Emperor *Sigismundus*, was to the great prejudice of the Ecclesiastique Roman estate, by renting a sunder from her Sea a great many of the Churches of Europe: for hee that is the God of peace and Hosts both, never exercises his revenging hand better then when things agreed upon equall termes are not observed: So the Histories report, that the same day of the Battaille given by the *Hungarian* King unto the Turke, that *Amurath* lifting up his eyes unto heaven, should say, *Iesus*, if thou be a true God, and of this people who encounter mee this day, and that they honour and serve thee, shew it by the equity of this cause, which by his obtaining of that dayes victory was plainly manifested: and it is manifestly seene, that the breach of faith plighted to the two *Bohemians*, and their burning unto ashes, was so far from smothering the faults whereof they complained; that on the contrary, diverse worthy and learned men after them, blowing this coale, by them then kindled, have made its flame to blaze through all the world: as the bloody wars through many parts of *Europe*, for maintaining of their cause; at least their opinions, can to after ages beare record.

It is true indeed, this word Peace sounds sweet in every eare; wherefore our Saviour *Christ* leaving this world, left his peace with his Disciples; and his house also is called *Domus pacis*: and blessed be the feet

feet of those that carry the glad tydings of peace; yea, the Angell from heaven proclaimed peace on earth, and towards men good will: in a word, *Beati pacifici, Blessed are all peacemakers*: yet it hath never beene thought so gracious, but that a necessary warre was to be preferred unto it, if it was dishonestly violated, or shamefully agreed upon.

What then may be said to *Bartoll* one of the greatest Lawyers of his age, who in the Law, *Conventio-num codice de pactis*, or at least in the *Digestis* maintaineth, That faith is not to be kept to particular enemies; which *Cicero* in his 3. lib. *Officiorum*, although but a Heathen, contradicteth: and that of *Ulpian*, no lesse in credit than he, That it is lawfull to circumvent one another; and chiefly, seeing in all their writings they esteeme more of the true keeping of our promised faith in all our actions, than of strict and precise justice; but so thought not the good Emperour *Augustus Caesar*, though he had promised a great many Talents of gold to those who should bring him the head of *Crocodas* a notable robber in his time, which robber hearing of this reward, came of himselfe, and layed downe his head at the Emperours feet, and craved the reward conditioned; whereupon the Emperour did appeare so farre from revenge, that he forthwith granted him not onely his life, but the promised Talents also.

Neither did the noble *Iosua* so, when he was deceived with the *Gibeonites*; for although those deceaving Politicians, or rather hypocrites hold for truth that, *Frangenti fidem, fides frangatur eidem.*

And worse than that, they doe violate likewise their

Bartol and Ulpian admit deceit to be used with the circumventer, and no faith to be kept to particular enemies

The Emperour *Augustus* kept faith, although to a rogue.

their plighted faith to those who have done them no injurie, nor made any breach of faith at all: yet, I say, *Iosua* did not so to the *Gibeonites* who deceived him; for when the Iewish Captaines would have beene revenged on them; the Princes answered: Wee have sworne unto them by the *Lord God* of Israel, now therefore we may not touch them, &c. *Iosh. 9. 19.*

Section 2.

Mentall-reservation defined. All fraudulency, in making peace, or taking truce condemned; for which purpose are instanced examples of Grecians, Romans, and others.

WHat shall bee said to those, who while they sweare and promise, have neverthelesse in their minde no intention at all to performe?

Lingua juravi, mentem injuratum servavi.

Of mentall reservation,
what it is.

Cleomenes although packt up a truce with his enemy, for some dayes, yet in the night surpris'd them

Alexander the great could honourably say, *Malo me for-
tune peniteat
quam victoria
pudeat.*

A *maxime* with the former, not hatched in the braine of a *Florentine* matchiavill, but raked out of the profoundest Cabinet of the most secret, and most obscure dungeon in hell: *Cleomenes* after a truce made up with the *Argives* for seven dayes, the third night thereafter under trust and assurance, surpris'd them; and then being challenged of his promise, made answer, That he made truces for dayes, and not for nights: *Lysander* used to say, that men should be deceived with oathes, as children with apples: the generosity of a noble *Alexander* acknowledged no such guile; who when *Polypercon* his Counsellor had advised him to take advantage of the darkenesse of the night, against *Darius*, could reply, That he had rather chuse to repent the losse of his fortune, than to purchase

chafe victory with shame, *Malo me fortuna pœniteat, quàm pudeat victoria*: and the magnanimous Romans were offended wth their Embassadour *Lucius Marcius*, The Romans offended with their Legat *L. Marcius*, because that in their warres under him with *Perseus* King of *Macedon*, he used subtilties and circumventions to purchase his victories: on such considerations as these, they sent back to *Pyrrhus*, K. of *Epirots* his Physitian, (who had undertaken to poyson him :) likewise *Camillus* at the siege of *Veij*, made the children whip their Master with rods, who had rendered them by his treachery into the Consuls hands. The bravest, both Commanders, and Souldiers, who were taken prisoners by the *Samnites*, and had obtained liberty to come backe to *Rome* to take leave of their friends; were by them sent back againe, or rather, returned of their owne accord, although some to a certaine death: so farre were they from holding, that faith should not be kept either to enemies in generall or particular, much lesse to stretch a thing to the contrary, whereof they had a reservation in their minde; for by such jugling evasions those *Roman* prisoners taken by *Pyrrhus*, and permitted to come home and visit friends, might have alleaged, that they were not obliged to return, (as they did) because they might have said, that howsoever they had sworne with their mouthes, yet in their hearts they thought not so: likewise, *Attilius Regulus* the Consull, taken by the *Carthaginians*, and set at liberty to visit the City, upon promise of returne might have said: but the innocency of that age knew no other way but the right and square, and rather choosed to undergoe death, than to make a breach of the integrity of their faith made unto an enemy.

Section

Sect. 3.

The integrity of the ancients commended in making peace, and their other pactions. A story of P. Corn. Scipio to that purpose. Græca fides, what, and wherefore used: Of the dishonest dealing of Pope Alexander, and his nephew, Cæsar Borgia, &c.

The manner observed by the ancients in making their truces, peace, or other pactions.

I will not passe under silence the manner observed by the Ancients in breaking truces, peace, pactions, or leagues amongst them; that posterity may understand, how averse they were from having their thoughts dissonant from their words: and to this purpose I remember, that at the peace concluded on betwixt the *Romans* and the *Carthaginians* in the dictatorship of *Pub. Corn. Scipio*, a *Roman* Herauld standing up betwixt both parties, assembled for finishing of the same, after they had spoken their mindes, *hinc inde*, the Herauld, I say, standing with a stone in his hand, in these termes concluded the matter.

The termes and words of their covenants.

If justly, and without any fraud or guile, I make the oath of observancie, and doe finish this paction, then may the Gods be propitious, and grant that all things may fall happily out unto us; if I either doe or thinke otherwise than I have spoken, then, (so all the rest be safe) let me fall and perish alone by mine owne Lawes, in my owne family, with my private Lares, and domestick Gods, in my owne Temples and Sepulchers, as this stone falls from my hand; which words finished, he throweth the stone from him, or rather

rather lets it fall to the ground, and so endeth. The *Carthaginian* Herauld swore by all their Countrey Gods, and their private ones, to observe all that is covenanted. *Livius* noteth these same tearmes to have beene used in the first peace concluded on betwixt these same people in the consulship of *Iunius Brutus*, and *Marcus Valerius*, or shortly after (if *Sabellicus* mistake not), which two first Consuls, *Rome* had diverse yeeres before *Zerxes* expedition against the *Greekes*: alwayes *Polybins* hath these same words both exemplary and memorable: like as *Sabellicus* in his 6. lib. *Aenead.* 4. punctually setteth them downe, albeit both *Livie* and *Dionysius* remarke but the generals: the speciall thing which I observe, is the word *Cogito*: if I thinke otherwise; which confounds all our mentallists, and makes them *Mentirists*: let the *Greekes* with their deceaving tricks and coosenages keepe that dishonourable honour, *Græca fides*, which is alwayes taken for a subdalous and fraudulent faith: but God defend that ever such aspersions and imputations be laid to a true *Britanne*; and let Popish *Rome*, now of late declined and degenerated from the old honest *Rome*, pride herselfe and her sectaries in their mentall-reservations; let one Pope *Alexander* and his nephew *Cesar Borgia* vaunt themselves; the one, that he did never think the thing which he spake; the other, that like our mentallists, hee never spake the thing which hee thought: and let a *Leo* the tenth of that name, promise truth and faith to a *Paul Baillon*, (who had expelled his nephew out of *Perugia*,) that he under trust of his Holinesse's word should come unto *Rome* safely with his associates, to live at Court as before,

The *Greeks* branded with that, to be called, Not keepers of their oathes.

Pope *Alexander* and his nephew *Borgia* both remarked dishonest in their deeds and words.

fore, and yet neverthelesse, did put him and them to death: as likewise a *Cardinall*, *Alfonso* of *Sienna*, who for suspicion of poysoning the *Pope* with a *Buccado*, or *Nosegay*, retired himselfe from Court, perceiving his *Holinesse* countenance to bee cast downe upon him, and would not be moved to returne againe; but under his holinesse faith and true promise made, not onely to himselfe, but to the *Embassadour* of *Spaine*, in his Masters name, for his more security also; yet neverthelesse having once caught him in his net, did put him to a violent death.

Other Popes
guilty of that
same fault.

His successor *Clement* the seventh did almost this same to the *Florentines*, to whom, as he had solemnly conditioned to give them their liberties and Immunities, as likewise to the Spanish *Ambassador* in his Masters name, for them, for their further security; yet being once possesse of their City, contrary to promise, he subjected it to his Nephew, who having strengthened it with strong and mighty Cittadells and forts, did appropriate it to himselfe and his family: Let these Popes (I say) thinke and promise one thing, and doe another; farre be it from any *Britan* to doe so; as equity and truth is, or ought to be in your hearts, so let truth be in your mindes also.

Exhortation to
his Countrey-
people not to
doe so.

Section



Sect. 4.

The difference betwixt the auncient and the moderne Romans in uprightnesse of dealing, instanced by a story of Pompey the Great, and Augustus Caesar.

AND now it shall content me to parallell one example amongst thousands which I could produce, of the honestie and integrity of old Rome with our new Christianized Rome; and then let the indifferent reader judge of the one and of the other; The great Pompey, when he with his Navall Armie (so much renowned in their stories,) had scowred all the Mediterranean Sea, then infested with Pirates, having (I say) given his promise of safety to one or two of the most speciall amongst them, did not violate nor molest them; but that was little; for *Augustus Caesar* did as much to *Crocotas*; but herein shewed he his honest minde, that when he had two of his most speciall enemies within his chiete *Galleon*, (although for the time but coldly enough reconciled unto him,) and was spoken unto by the Pilot, who acquainted him, that now it was the time to ridde himselfe of them both; and if hee pleased, that he himselfe should be the man to doe the businesse; No, no, said he; If thou haddest killed them without acquainting mee therewith, then hadst thou done a peece of good service; but now, doe it not, since they are here under my trust.

The integrity
of ancient Ro-
mans.

Quia habita fides ipsam obligat fidem.

Wee

We should make our words and actions agree and jumpe together, such Princes who in their life time dissembling grant pardons to offenders, and yet leave it in charge to their successors to be avenged on them, can no wayes be excused : for seeing our intentions do judge our actions ; death cannot acquit them of that obligation, besides that the entrant King is made formidable at his entrie, who otherwise should enter his Crowne with love and peace.



Sect. 5.

Of the breach of Faith to Enemies : Treacherie at a Siege of Capua : Treacherie and cruelty committed by the Spaniards at a Siege of Genoa. The strictnesse of Generalls over common Souldiers exemplified, &c.

Of keeping no
faith to ene-
mies.

A fault com-
mitted by our
Duke Aubig-
ny at the siege
of Capua, or ra-
ther by the in-
solent French
under him.

Neither yet know I how to exempt from the scandall of this fault these two which I read of in the late Italian History ; The one, that of the **LORD Aubigny** at the Siedge of *Capua*, where he commanded the French without the Towne ; and *Seigneur Fabricius Colonna* within : For the Historie saith, that while the said *Colonna* was parlementing on the face of a bastion with the said **LORD Aubigny**, upon conditions of surrendring ; That the (French by the negligent watch of Centinells within, suspecting no hostility during a parle) entred the Citie in fury, and so made Prize of it.

Although

Although it might bee lawfull to all commanders (where there are no covenants made) to take the best advantages of their adversaries that occasion can offer; and though *Montaignes*, whether favouring his owne countrey, or being mis-informed of the passages of that Siedge (I know not) thinketh that this Policy was intended or premeditated by that ever upright and most valourous Warriour *Bernard Lord D' Aubignie* (which must be a mistake;) yet the Precedent and succeeding most valourous and many most generous acts of that ever renowned man, may witnes the contrary; for many French Writers, (as may be seene in Master *Quines* booke of his life) have so ingenuously, honestly and according to his Merit, illustrated his brave acts in so lively Colours, that the honours, which for them were conferred upon him, would convince one, and confirme their credit that have so largely and truely spoken of him: that it may truly be continued of his worth.

Vivet post funera Virtus.

The other at *Genoa*, where the Marquess of *Pesquierra* was commander of the Spanish forces without the Towne, and the Duke Seigneur *Ottavian Fre-goso* commanding within in the name of the French King; in like manner (and it may be for revenge and compensation of the Capuan cruelty) whilest the two Generalls were under tearmes, yea, and finall conditions of rendring the Towne; The Spanyard (taking advantage of the negligent attendance of those within, who were secure, thinking all ready for the sur-rendring) entred the City, putting them all to the sword without distinction of Age, Sexe, or condition.

A Cruelty committed at Genoa against the French within, by the Spanyard without.

I know not (I say) how to quit these two from the imputation of treachery, except to say, that at times the insolency and fury of poore incensed Souldiers is so hardly suppressed by the threatnings of their Generalls or Commanders, as is a wonder; yea admit it were in as reformed a Warfare as that whereof the Lord Montagues in his Chapter of Conscience lib. 12. speaketh; where amongst divers others of his notable discourses, he bringeth in a Generall causing to kill a Souldier and rip up his stomach to see the portage which a poore woman complained he had wrest from her, and with which she was to save her childe from starving, conditionally, that if it were not found there, the Woman playntife should dye, to expiate his death and her false accusation.

But strange it is albeit, this former recited Maxime should hold in Warres; That from a generall Councell which (as they say) cannot erre, the representative body of the holy Church, the Columnne of veritie, that from it (I say) such a decree should have sprung, which may occasion us to say of them as was said of the licentious Souldiers, *Quibus, cum quod libet, licet, & quod libent, audent, & quod audent, faciunt: O Sacculula, O mores!*



A
TREATISE
OF
LAUGHING AND
MOVRNING.

Section 1.

*The benefits and content that all men reape by the workes
and labours of Writers and Travellers.*

Histories and travellers are said to be like
those who cracke the Nut and give a-
way the kernell; their toyles, labours
and witty inventions are by them readie
drest for all readers, hearers or seers;
For when they read their travells and studies, they are
like

like those who lying secure upon land, doe from some Promontory behold a ship tossed on the swelling billowes, beating with raging windes and tempests, and well nigh Ship-wrackt : *Et mare cum Spumis candentibus astra laceſſit : & cum tartarei ſubſidit ad ima barathri* : Who ſees or reades their workes receive the ſweete of their toile : but yet not hereby challenging any ſingularity unto my ſelfe above others, I freely offer and expoſe theſe labours to all, which for the variety will (I hope) bee acceptable ; and gracious acceptance is the reward I crave. But to the matter in hand.



Section 2.

Of ſudden deaths that have hapned unto men amidſt their feaſting and other Iollities, exemplified with ſtories both Sacred and prophane.

Little good followeth commonly exceſſe of mirth and laughter,

IN the Countrey of *Agenois* (a part of the famous province of *Aquitaine*,) where firſt I ſpent ſome yeares not without ſome copious and ſeverall obſervations : a Baron there, *M^r. de Longad la barriere*, at a feaſt in his owne houſe, laughing and making merrý with his Gueſts, having a legge of a pullet in his hand, expired ſuddainely amongſt their hands. Mirth at banquets ſhould not be exceſſive but moderate ; for which the *Egyptians* uſed at their feaſt to ſet a Scull or Anatomie on or by the table, that by the thought and

and fight thereof they might moderate their excesses, which oftentimes hastneth death or else diseases.

Holy Scriptures furnisheth us with examples, as those of *Nebuchadonozor*, *Baltasar*, and the rich glutton, who had the most exemplarie punishments in this kinde that we reade of. Examples of Nebuchadonozor, Baltasar, and the rich glutton to this purpose.

In the Roman History *Cornelius Balbus* recorded by *Tacitus*, who, whilst he was under a cloud and silence of night, carousing, quaffing, and laughing so loud, that the sicke Emperor (his Lord) could heare him from his chamber windowes with his camrades, is memorable, who not only endangered the losse of his Princes favour, but of his life also for his so unseasonable and insolent mirth.

Now, if we shall leave feasting, and but speake of other Ioyes, we shall finde that when men thinke their estate most secure, and doe rejoyce in the injoying of it; that even then their suddaine fall hapneth, and followeth them as their shadow: King *David* for glorying in his numbered people, was plagued: *Julius Caesar* in his imperiall Throne having by the overthrow of his enemies attained that verticall point of earthly honour, was even then and there murdered.

Examples of such who in the midst of all their felicities, have been taken away.

King *Henry* the second of France, was amidst the triumphs and tiltings of his Sisters wedding solemnities, killed. King *Henry* the third at the rendering up of his rebellious Citie of Paris to him, was murdered by the trayterous stroake of a blacke Frier, his predecessors both shortly taken away: But more miserably, his great and valorous successor *Henry* 4th. in the midst of that glorious City, and of the pompous shewes at his Queenes coronation, was murdered.

Our hopefull Prince *Henry* taken away about the time of his sisters mirthfull Nuptialls.

And I read of a Prince in an Historian, whose torch dedicated and lighted to Hymen in his nuptialls, served to kindle his funerall pile.

Not to speake a word of *Philip* of Macedon killed in the midst of his Army, while he is assisting the sacrifice to the Gods : Nor of his Son *Alexander* the great, cut off in the floure of his yeares, Ioyes, and glorious great victories, with a thousand of this same kinde.



Section 3.

Stories of severall worthy and brave men ; that upon occasions have shed teares : of the sensible greefe of some Horses, Dogges, and Hawkes upon the losse of their Masters.

Wifely was it
ordained that
the Paschall
Lambe should
be eaten with
sour hearbes.

WHich being so, we may see that the Lord ordained wifely the Paschall Lambe to be eaten with bitter hearbes ; And providently the old heathen enjoyned us to mingle cares amidst our joyes.

Lata tibi austeris varientur festa profestis.

From holy Scripture we have warrant, that it is better to be in the house of mourning and weeping, then in that of laughing : And blessed are they that weepe ; for they shall bee comforted, and their teares washt from their eyes ; our Saviour is said to have wept, and never

Our Saviour
did never
laugh.

never to have laughed: we reade of St. *Peter's* teares; of the royall Prophets, of the Prophet *Jeremy* his complaints; of the groanings, howlings and lamentings of the best servants of God, of none, or little of their rejoycing, except it had beene under the Crosse, or at least in the Lord; finally with teares wee come into this world, with care wee abide in it, and with paine wee remove from it.

Yea even of those who are most enured, and hardened with fights, bloudsheds, alarmes, and consequently, who should seeme most averse from teares, pitie and compassion, some I marke to have solemnly wept and are signalized, more peradventure in consideration of humane frailty, as measuring things by themselves, then otherwise for any great matter or reason they had to shedd teares for the time; seeing they had obtained the thing they so eagerly desired.

Four famous
and renowned
Warriors, have
shed teares.

Nam cum prada sternitur, alter

Premia solliciti certu laboris habet.

The good Emperor *Adrian* at his triumphant entrie into Rome after a remarkable victorie, seeing the innumerable spoyles of his enemies before his Imperiall chayre, and the Captives themselves manacled and fettered with chaines, doing homage unto him; It is recorded of him, that though he rejoyced in publicke, yet in private hee wept, and in a manner expressed by all likelihood no lesse than our famous *Buchanan* in this distich.

The Empe-
ror *Adrian*
even amidst all
his triumphs,
remembering
the frailty of
nature.

*Tu quoq, crudelis Babylon dabis improba panas;
Et rerum instabiles experiere vices.*

King

The Prophet
David, when
he did heare of
Absoloms death
Iulius Caesar at
Pompeys head.
Vespasian see-
ing the temple
of Salomon on
fire.
Xerxes seeing
all his nume-
rous Army be-
fore him.

King David shed teares at the sight or hearing of his sonne *Absoloms* death; *Iulius Caesar*, at the sight of *Pompeys* head: *Vespasian*, seeing the holy and magnificent *Sanctum Sanctorum* on fire: *Xerxes*, the insolent Persian King, yet seeing a number of hundred thousands in a plaine, wept, considering the frailty of nature; for that of so many as hee saw there, they might bee all dead in few houres, dayes, or yeeres. To these, I may subjoyne *Bajazet* successor to *Mahomet* Emperour of the *Turks*, Anno, 1481. his teares, after his brother *Zizimus* had surrendered himselfe to the great Master of *Malta*, in name of all the Christian Princes; whom neverthelesse he drove to that extremity. As for *Heraclitus* his perpetuall weeping for the misery of this world, I thinke it as worthy of blame, as *Democritus* his continuall laughing at the folly of it: seeing (with *Salomon*) there are times to laugh, and times to weepe also,

--- Nam res humana fatiscit,
Leta nisi austeris varientur festa profestis.

We reade of
Horses which
have wept.

And if we trust *Sabellicus*, not onely Men, but also Horses and Dogs, have beene seene to weepe for the losse of their Masters; he instanceth particularly, that those Horses which *Iulius Caesar* vowed to *Mars* at his passage over *Rubicon*, were observed before his murder to stray carelessly up and downe, prognosticating (as it were) their masters death by their unaccustomed drooping, dejectednesse, and shedding of teares: *Du Bartas* Hawke, which hee relateth to have cast it selfe (after some other signes of sorrow) into the grave with the corps of its dead Master, may be mentioned as rare and memorable.

Sect.



Section 4.

Risus Sardonicus, what, and how to be taken: Of the holy teare kept in the Abby Church at Vandome, in France.

NOW for laughing: that which we call *Risus Sardonicus*, is a perfect modell and patterne of our humane laughing: for as they who have eaten of the hearb *Sardis*, do all the perfect gestures of one tickled with joy or mirth, as dimpling their cheeks, and other like gestures; yet it is onely the contracting power of that venomous herbe, that procureth that convulsive gesture in them: the *Crocodiles* teares may be compared oftentimes to our weeping, as being either delusive, treacherous, or revengefull; and too many (I feare) doe like *Iudas*, kisse, onely to deceive.

But what shall be said to the Teare which is conserved in a Violl, and kept in a little Chappell on the North-side of the Abbey-Church, at *Vandome* in *France*; which they give forth to be a teare which fell from our Lords eyes, and was kept since in that Violl by some holy Saint living in those dayes; which in an overpious beleefe, they say, hath continued since without diminution; by them called, *La Sainte larme*, The holy teare: this at solemne festivall dayes they shew and exhibite to the superstitiously credulous people, that repaire thither from the remotest parts of that kingdome; who with great and sub-

The Teare
which is in the
Abby Church
of *Vandome*,
what it can be,

missive

missive prostration and kneeling, kisse it, to the great and gainfull profit of the keeper : truly, for my owne part, I am not so universally catholick (though I have seene it) as to beleeeve that, no more than their religious paradoxes of the transportation of our Lady *De Loretta* her chamber from so many diverse places and countries, to the place where now it is : neither finde I any motion to pray God for helpe in my unbeliefe of this and other such fained miracles of theirs, being so meerely and palpably grosse inventions of men,



Sect. 5.

Of weeping for the dead how to be moderated. The matter of teares : of laughing and weeping for one and the same thing : moderation in both commended.

Weeping for the dead allowable, provided, it be not immoderate.

Although *Tertullian* in his booke *De patientia*, did forbid the people in his dayes to mourne and weepe for the dead, yet our Lord and other Saints have wept for them : *S. Paul* indeed, reprehendeth the immoderatenesse of it, 1 *Thes. chap. 4.* where he forbiddeth not the *Thessalonians* to sorrow at all ; but not sorrow as those who had no hope of the resurrection. The Poet could finde fault with immoderate mourning for the dead ; which in this Iron and declining age of the world but very few needs to be reprov'd for.

*Tu semper urges flebilibus modis
 Misten ademptam, nec tibi vespero,
 Cadente decedunt amores,
 Nec rapidum fugiente solem.*

The philosophicall reason given for not mourning for the dead, I thinke neither allowable to a Christian, nor to a meere naturallist; for they say, that it is but lost time and action, seeing death is remediless, common, necessary; and teares cannot prevaile to recall them againe, and therefore availe nothing: for such like arguments are rather to reinforce sorrow, than otherwayes to mitigate griefe: and so much the rather, because there is no remedy for it for as another Philosopher replieth to one who reprooved him for lamenting so heavily the death of his sonne, since (said he) you know that there is no remedy for it; and therefore (replied the other) doe I weepe: yet some of the wisest sort of them agreed unto this mourning for the dead, as a kind, naturall duty; in so farre, that they who wept not for their parents death, were by them said,

In patrios minxisse cineres.

Not to speake of the matter of teares, whether it be the same with that of sweate, or the waterish part of bloud, all these being salt: I shall enquire the occasion of teares, which we finde out of holy and prophane stories, to be both joy and sorrow. In *Ezra*, We laugh and when the *Jewes* saw the holy Temple re-edified, *They wept* (saith the Prophet) but diversly, some for joy to see it rebuilt againe, others for sorrow to see the glory

The matter of our teares.
 We laugh and weep diversly for the selfe-same causes.

glory and ornament of it, as it was then, not comparable to the former: so wept *Ioseph* for joy upon his brethrens necks: in a word, ire and revenge will occasion teares, as well as pitty and compassion; yea, some will weepe on no occasion.

Mens immota manet, lachryma voluntur inanes.

Neither they
commendable
who laugh al-
wayes, nor
they who
mourne.

I can say no more to the stupidity of these people, than to their folly who laugh at all occasions without cause.

Philosophers reply to one who reproved him for lamenting so heavily the death of his sonne, since (saide) you know that there is no remedy for it, and therefore (replyed the other) doe I weepe: yet some of them agreed unto this mourning for the dead, as a kind, naturall duty; in so farre, that they who wept not for their parents death, were by

Section

In patris mixta cinere.
Not to loose the matter of tears, whether it be the same with that of Ioseph, for the water will be the same, all this being said: I shall capone the occasion of tears; which we made out of holy and profane figures to be both joy and sorrow. In Ioseph we saw the holy figure to which I have referred, for joy; and in the prophet, but differently, for sorrow to see it repit againe, others for sorrow to see the

OF
VARIETIES
THE
FOVRTH BOOK:
CONTAINING FOVRE
TREATISES.

1. *Curiosities.*
2. *Divine Philosophy, or
Mans felicity.*
OF { 3. *The Consonancy and agreement
betwixt Ancient Philosophers
and Christian professors.*
4. *Sleepe and Dreames.*

BY
DAVID PERSON of *Loughlands* in SCOTLAND
GENTLEMAN.

Et quæ non prosunt singula, multa juvant.

LONDON,
Printed by RICHARD Badger, for Thomas Alcorn,
and are to be sold at his shop, in *Pauls Church-yard*
at the signe of the *Greene-Dragon.* 1635.

OF
VARIETIES
THE
FOURTH BOOK
CONTAINING FOURS
TREATISES.

1. *Of Wisdom.*
2. *Of Divine Philosophy, or*
Man's felicity.
3. *Of the Consistency and agreement*
between Ancient Philosophers
and Christian professors.
4. *Of Sleep and Dreams.*

BY
DAVID PATRICKSON OF LONDON, ESQ. &c.
GENTLEMAN.

At the new-printing-house, in Pall-mall.

Printed by RICHARD DODD, at the Theatre, in Pall-mall, and are to be sold at the shop of the Author, in Pall-mall, and at the shop of the Printer, in Pall-mall.



TO
THE RIGHT HONORABLE,
JOHN,

Earle of *Traquair*, Lord *Linton* and
Caberston; his MAJESTIES Treasurer
Depute of Scotland, and one of his Majesties
most Honorable Privie-Councell
there.

Right honorable,



*Ex*amples of Histories and daily experience
teach us, that as Piety and Iustice are
the pillars of a State, and the Countrey
happy (as none more than ours) whose
King is endued with them, seeing people
commonly follow their example; so most fortunate is the
Land, where a most wise King substitutes such officers of
State, as whose piety, justice, charity, and other vertues,
may be a comfort, rule, and example to the people, over
whom God and their King hath placed them: That this
reflecteth upon you my Lord, none of our Nation is so de-
stitute of understanding as to question; upon which assu-

(* * 2)

rance

rance. I have adventured this dedication to your Lordship,
that where these eminent vertues doe so cleerely shine
there can be no clouded mystinesse cast betwixt a candid
and auspicious acceptance, and this small tender of my du-
ty to honourable vertue, and entire affection to your Ho-
nour: which in your younger yeeres at Paris (where I be-
gan this work) I did vow unto your then blooming merits;
and now performe, that it may remaine to after Ages, as
an everduring token of the love, favour, duty, honour,
and respect, that was alwayes carried to the most illustrious
name of Stewart in generall, and to You my Lord in par-
ticular, as a Noble branch of the Honorable Stock of
Lennox, By

Your Lordships faithfull and
affectioned servant,

David Person.



OF VARIETIES THE FOURTH BOOKE,

Of Curiosities, where the greatest
Subtilities of all Sciences are some way un-
folded, and disapprooved; and some naturall
Curiosities propounded, as of the Heavens,
Aire, Seas, Earth, &c.

Section 1.

*The difference betwixt factions and seditions : a rebellion of
the common people of Rome against the Senate and Patri-
cians. Emulation a principall producer of great exploits;
the harme that followeth Curiosity, and that Church-
men are not exempt from it.*



AS order and unity are the upholders of a Commonwealth, so factions and sedi-
tions are their overthrow; These two I
hold not to bee one; for sedition is by
open violence; faction, under colour of
Iustice; That both these are procured by too curious
and

Difference be-
twixt factions
and seditions.

Vproare of the
Commons at
Rome against
the Patricians,
appeased by
*Menenius
Agrippa.*

Emulation and
ambition in
well doing is
allowable.

Curiosity
the Mother of
mischief.

Our Schooles
and Learned
men not ex-
empt from it.

and ambitious braines and diseased spirits, who envy other mens preferment or wealth above their owne; it is manifest; as thorow all the Romane history, so particularly in that sedition of the Commons who openly rose up against the Senat and Patricians, flying in armes to the Aventine Mount, where nevertheless by that elegant Oration of *Menenius Agrippa* (set downe by *Livius* at length) they were appeased.

My purpose here is not to hinder that honest emulation, and allowable curious ambition of well doing either in private or publike men; for both the Greeke and Roman stories doe sufficiently informe us, that there were never greater incitements to an emulous antagonist, then their opposites glorious exploits in war, and vertuous proceedings in peace; nor sharper spurres to waken and rouse up their lasinesse (if any was) then the desire to parallell them; examples are very obvious in this kinde. My intent here is to desire a moderation in men of all conditions, especially the learned; for the harme, prejudice and evill that idle and stirring Curiosities (which have beene caused by *Antagonists* emulations, and disputes) have procured in private and publike men or States, in warre and peace, is universally and dayly perceaved and regrated: And who so would thinke that our Clergy and Gownemen who prescribe rules of wisdom unto others, are to bee exempted from this fault, are farre deceaved; for both of old and late dayes they have barboyled the sound doctrines of their professions, with their idle, unnecessary, and too curious questions; who so will with me skimme over but a handfull of them, shall soone confesse this truth.

Section



Section 2.

How Curiosities have wonderfully disturbed the peace of the Church; A Recitall of some impertinent Curiosities in Religion; with some also of Subtilis Scotus, and Thomas Aquinas, &c.

ANd first then, it may bee demanded, what solid peace and agreement hath been in the sacred Church which is the pillar of Truth, since the purity of the Primitive Doctrine left by the holy Evangelists, Apostles, and their Successors hath beene adulterated, and martyred with curious questions; as those of Transubstantiation, Concomirance, Latreia, Dulia, Hyperdulia, mentall reservation, equivocations, implicite faith, congruities, condignities, and Supererogations, together with the inerrability of the Popes Holinesse, *Semi-man*, and *Demi-God*; as also those questions of our late Divines, whether *CHRIST*s death alone was satisfactory for our salvation, or His life and death together? And those questions also of providence, of predestination, of prescience, Gods effective and permissive power in sin, if *GOD* can lie, or recall time past, or make a thing done, to bee undone, &c. what hath mooved our so inquisitive Curiofists, as *Subtilis Scotus*, and *D. Thom.* who have (as it were) so overclouded all with their pregnancies of wit, to be so curiously solicitous,

What peace hath the most curious questions brought unto the Church, but rather hath divided us all.

In Metaphysick we crossed to know, if there be in nature any other production besides Creation and Generation.

Whether accidents be created or concreated.

If God may sustayne accidents without their substances to subsist in.

The actions of Gods will tend unto, and terminate with a subject.

licitous, as to enquire, whether or not besides Creation and Generation, there were any other production of things in nature different and distinct from those two? Wch surely is not; for by that meanes accidents should be found to be concreated & congenerated, not *inhesive*, and having their being in the subject according to the Logicians rule, *accidentis est inesse*. Whereupon followed that no lesse idle then curious question, whether God may sustayne accidents after the substracting of their subject from them, in which they were, and with which they were concreated; as who can imagine a whitenesse to exist without a wall, paper, cloud, cloath or some such subject to be in, wherewith first it was concreated, as *Ruvius* in his Commentary upon the second *Phys.* and second *de anima* fondly giveth forth? seeing it is certaine, that the actions of Gods will are ever bounded to, and terminated with an object, either possible or actuall; and the reason of this is, because all potency and possibility to bee, tendeth to and terminateth in an object, from which it may assume the owne species & kind; So that the acts of the divine Intellect or understanding tending to an object extant, or in aptibility to exist, do tend to it, as it is in the Divine intellect; and so consequently such, as actually or possibly existeth.

Such questions as these being more fit to cruciate and perplex the mindes, yea even of the most learned, then otherwise to instruct them or any of the weaker sort.

Section



Section 3.

A continuation of some other Theologicall and Metaphysicall subtilities and curiosities.

SVch as this, is that of the multiplicity of formes in one selte same subject, and this ; if the formes of matters be extracted out of the potentiality of the matters, which certainly is, the first, not : wherein I agree with *Suares*, in his disputation upon the first of the *Metaphysicks* ; and whether *Angells* be species or individualls ; howbeit in my minde, what ever *Divus Thomas* speaketh in favour of species, they are more properly to be held as individualls ; yea, and with our Moderne Divines reverence, whether Protestants or Iesuites ; what can bee the formall object of our faith, the subject of it being once perfectly knowne ; howbeit in effect to my opinion, the formall object of it (with *Divus Thomas*) must bee the divine verity manifested unto us in holy Scripture by our Lord and Master, the holy Prophets, Evangelists, and Apostles, the pen men of *God*, together with the authority of the Church, which authority is but as a testimoniall, and secondary, and with both and all others permission, who pry and dive so deeply in the *Orcum* and mysteryes of Learning, as, whether or not Creation bee all one with the thing Created, sooner solved, then advisedly propounded :

If there be multiplicity of formes in one selte same matter.

If formes of matters be extracted out of the potentialitie of the matter.

If Angells be species or individualls.

ded: for so it is, that Creation being an action of the divine will, *fiat & factum est.* Gen. [1. 34. Moreover, that will in G O D, and His Divine essence being all one, there is no question, but that Creation is prior to the thing created: the like, or part whereof neither the *Jewish Thalmud*, nor the *Mahometan Alcoran* scarce ever did propound to their Readers. But I leave the sublimity of Theologicall and Metaphysicall questions which hath puzzled marvellously even the best refined and acute Spirits.



Section 4.

Of Curiosities in Logick; the relation betwixt the Creator and the creature: to what Heaven the Prophet Enoch and Elias were wrapt; what place is said to be Abrahams bosome.

Curiosity in Logick to know what sort of relation betwene the creature and the Creator.

WHat hath the Logician advanraged his art of reasoning by troubling himselfe and others, with what kind of relation is betwixt the creature and the Creator? Whether, with Aristotle, predicamentall or not? mutuall, or that it holdeth onely of the creature, not of the Creator also? howsoever, predicamentall with Aristotle it cannot be; for that Creation argueth no change in G O D, (as it doth in the thing Created, which is transchanged from a not being to a being which is certaine,) because G O D and supernall intelligences

intelligencies (as meere formes free of all matter) doe worke by their intellect and will ; So that Creation proceeding from G O D as an act of His will and intellect, must have beene from all eternity with Him, nothing being in Him which was not with Him likewise.

To the former adde this curiosity likewise: what Heaven it was which the Prophets *Enoch* and *Elias* were wrapt into ? for our curious *Ouranographers* by their doings (I warrant you) shall exclude them out of all Heavens: for why say they? into the Aire, (which is the first Heaven) they could not be wrapt, seeing if they were taken up from the Earth for rest and ease, there they would find little, it being the proper place of stormes and tempests ; neither into the second, for if for ease, joy and rest, they were taken from the earth, it behooved to be elsewhere then there, because that starrie Heaven by many is held to be in perpetuall revolution and motion ; much lesse will they admit them into the third Heaven ; because they were not as yet glorified, at least, there is no warrant in Scripture for it : besides that, our MASTER I E S U S C H R I S T being *Primitia resurrectionis* was the first that entered, which was many ages after their uptaking.

What Heaven
the Prophet
Enoch was
wrapt unto.

Where the bosome of A B R A H A M is, to which most credibly they were rapt, our curious Topographers cannot agree ; their sublimities and curiosities rather producing scruples then instruction.

What it is, is by all almost agreed upon ; but where it is, maketh the doubt : with *Peter Martyr Vermillius* *loco. 16. Classis 3.* It is thought to be nothing els then a

What and
where *Abra-
ham's bosome*
is.

place of rest, where the soules of the Fathers departed before our SAVIOUR S comming to the World, were attending, and in joy expecting it, denominated from *Abraham* the Father of the faithfull, without excluding the rest of the Fathers; which place, what ever they say, I take to have beene in Heaven, in which (we know) there are many stations, how ever they perplex themselves in marshalling our lodgings there. And, against them all, of this opinion is *S. Augustine*, Commenting on the 85. *Psalme*.



Section 5.

The Curiosity of the Millenarij; with many other Curiosities more frivolous then necessary.

THe curiosity of the Millenarij, called by the *Greekes* *χιλίαςοι* is worth your notice; who give forth, that after the generall resurrection, the godly shall enjoy a thousand yeares pleasures in soule and body on this earth, before the wicked be resuscitated, which they on earth did want whilest the wicked flourished; and that according to *Irenaeus* his opinion. *lib. adversus haeticos*. But they have even as much likelyhood and warrant for this out of holy Scripture, as others have for that other tenent, that after the resurrection of man, there shall bee likewise a renovation of beasts, hearbes, plants, &c.

If beasts, herbs
plants, will bee
renovved with
man after the
resurrection.

But

But to proceed in their subjects, what curiosity hath driven our Inquisitors to aske, if death shall bereave our most learned of all sence and insight in Sciences, that in Heaven they shall be in no better degree of happiness than the rude ignorant; whereas in the first to the *Corinthians* and the fifteenth Chapter it is said, *alia est gloria luna, alia solis*; better it were to know how to come there, then inquisitively to search what higher places there are there: but no question if the arguments drawn from contraries, doe hold, then sure in hell there bee diversitie of paynes, so in Heaven also there bee disparity of joyes: for in the house of the Lord are many mansions.

If there be degrees of glory in heaven.

Yea, but saith my curiosist, what language shall we speake in Heaven? an idle question; what other language should we have but *Hallelujahs, hymnes*, and praises to Him who sitteth upon the Throne? This with many other scruples, and errors in inverting, perverting augmenting, derogating, transverting, throwing, wresting Gods Word, Will, Truth, and Decree, I passe, and apply my selfe to the *Physiologist* enquiring, if there was a world before this began; if there shall be another after this. If there bee more then this which presently we inhabite, if there be more celestiall spheares then one; what time of the yeare this world began, and when it shall have an end. All which, in my Title of the world I handle, excepting onely the multiplicity of heavenly orbes which I doe admit, refusing alwayes their Eccentrick and Epilicks; as also I disallow the Eccentricks of the earth, as being all curiosities of small moment, and remit the Reader to the

What language in heaven.

Curiosity in Physicke to know whether there be more worlds then one. If there was one before this.

found.

found and true knowledge of the course, nature, and influence of the planets; which our curious Physitians, or Pseudo-Astrologers imaginatively do handle.



Section 6.

That the Planets and other Celestiall bodies have not that power over the natures of men and Women that Astrologers ascribe unto them: That the Starres are innumerable; Of the number and greatnesse of some in Via lactea; Where the center of the earth is; its Circumference. Of Etna, Hecla, Saint Patricks hole, and the like.

The Starres
and heavenly
lights force
not our incli-
nations.

Neither can I bee induced to believe the inforcing power they ascribe to these planets over men and womens natures at the houre of their birth; they may well (I confesse) incline and helpe our propensities, force them they cannot: for with *Homer latinized*;

*Tales sunt hominum mores, qualis pater ipse
Iupiter anriferas lustravit lampade terras.*

Or rather with *Hippocrates* the Lord of their Art I think, against these sublime curiosities, that the heavens worke not upon the sublunary bodies of children, but by the mediation of the Air, which being alwayes in motion, and seldome alike at all times, cannot alwayes produce such and such like infallible dispositions proper to any one alone more then to others, in, and of that same time and place: the contrary whereof we see.

Mille

*Mille hominum species, & rerum discolor usus.
Velle suum cuiq; est, nec voto vivitur uno.*

But what ever fall out, it must not be so much attributed to the domination of any Starre at the Nativity of him or her, that way disposed, more then to others who sucke in that same Air, but rather to the diversity of mens inclinations of whom they are propagated; or to their studies, educations, and affections, &c.

The inclination of Parents more mooverly children naturally, then the Starres doe.

Thus the extremity of Philosophy is accounted folly, as the best rules in Physicke are; not but in case of extreme necessity, to use Physicke at all.

But yet, what extremity of folly is it in our Astronomers to give up the reckoning, yea even of the immoveable Stars, when God their Maker (blessed forever) holdeth them (in respect of men) as innumerable; as when He assured *Jacob* the Patriarch of the numberlessness of his posterity, He compareth their innumerablenesse to the Stars of the heaven; when (howsoever these of *via lactea* alone are so miscounted, that there are miriads besides, millions of misreckonings given up by the Arabs themselves) *Renew Herpinus* in his Apology for *Bodin* against *Augerius Ferrerius* his booke *de diebus decretonorij*s intendeth to give their supputation, if not infallibly, learnedly and Astrologically; yet too too curiously, in that place fol. 22. he divideth them in forty eight figures, and placeth twelve in the *Zodiack*, fifteen Meridionalls beyond the *Ecliptick*; twenty one Septentrionalls, and so forth; besides so many obscure ones, of which some of the biggest he instanceth to be 107 times bigger then the earth; some againe of the first and sixth bignesse, eightene times bigger, observing

The number and grearthenesse of certain Stars in the *via lactea*.

Diversities of
opinions.

observing the diameter of the largest, foure times bigger then that of the earth. Whereas the diameter of the lesser sort is in comparison to that of the earth, as fiftene, to eight, in respect of twenty one: all which hee prooveth against *Ferrerius* to observe a constant, equall, and not different course; of which Starres nevertheless, their number, course, bignesse, force, &c. not onely *Ptolomeus* (the Primat and Patron of that Science) (although *Plotinus*, *Proclus*, and *Prophyre* have not adhered to his demonstrations) in his worke, at least in his Preface τῆς μαθηματικῆς συντάξεως speaketh rather as of things sooner remarked by the Ancients, then rightly understood by him or them either; But likewise his Commentator *Theon Alexandrinus* on the like subjects giveth forth, that in these and the like matters, he desireth not his words to be taken for undoubted authorities: What have our *Topographers* wonne by inquiring, what can be in the centre of this Terrestiall Globe, which he giveth up to beneere seven thousand myles in diametrall thicknesse? whether hell be there or not? and whether or not *Aetna* in *Italy*, *Hecla* in *Island*, *Saint Patriks* hole in *Ireland*, or that formidably burning Mountayne by the *American Mexico* (wherein at times as elsewhere also (if our Historians mistake not) there are plaints and mourning voices to bee heard through) by the vents and Chimneyes of hell, as they give out.

Or what advantage have our *Vranographers*, or our familiar describers of the heavens, made (not to bee behind with our *Geographers*, who have given up the compasse of the earth? how soone a man may encom-
passe

pasſe it, as in the firſt Treatiſe of the ſecrets of nature may be ſcene : what have they advantaged (I ſay) by giving up the vaſtneſſe of the firmament ſo unmeaſurably large as they doe? for by their calculation, though a man ride fourty myles a day, yet ſhall he not ſee ſo much ground in many thoulands of yeares as the firmament goeth about the earth in twenty four
Via Lactea
 houres : So learned *Clavius* calculateth in his Com-
 mentary upon *Sacroboſcus*.
differently
given up.

But withall to know whether or not the Moone be inhabited, or hath mountaines, vallies, and champion ground within her body, and ſo forth; and whether the reſt of the planets as ſhe, be likewise inhabited; conſidering (ſay theſe curious fellowes) that theſe vaſt bodies cannot be framed for light onely, if not for this uſe alſo: but being wearyed with theſe and alike more curious then profitable queſtions, I leave them.

Sect.



Section 7.

*To search out the secrets of Nature allowable ; if men be not too curious in them ; Endoxus wish ; Plinius killed on the Mountaine of Vesuvius : Aristotle drowned in Euri-
pus ; Too much curiosity is a plague sent downe from Heaven on men ; The Poet Simonides acknowledged his ignorance of G O D ; How the Heathenish gods were pourtrayed.*

The enquiry
of the secrets
of nature, con-
venient food
for a curious
Spirir.

IF any curiosity may be allowed, I thinke the inquiry of the hidden and abstruse secrets of nature are agreeable and pleasing for a curious spirit ; provided that their curiosity carry them no further then to a reverent and respectfull admiration of the power of God, working in Nature by them.

Endoxus craved to be neere the Sunne although it should be with the hazard of his life, as that hee might knowe it.

But if once such curious and inquisitive braines doe transgresse these limits, and after the meditation of these things, doe begin to drawe out of the secrets of Nature that which is unprofitable, being knowne, and so doe become transgressors of the old Law, *Non altum sapere*, not to be too inquisitive ; then I say their curiosities become *vitious*: such as this, was the curiosity of *Endoxus*, who desired at the hands of the gods to be so neere the Sun as to discern the matter of it, (which was in question amongst his fellow Philosophers for the time) although it should bee to the hazard of his life ; Such curiosity

curiosity as this: cost *Plinius* his life, while too curiously he approached to the top of the Mount *Vesuvius*, by Naples (which I did with the hazard of mine also) from thence to look down to the body of the hollowed hill to see if he might discern the cause and matter of that fyre, which bursting up in flames now and then, had made it hollow within, for then being choakt with a flash of a suddayne flame, hee dyed ; So the river *Euripus* did requite *Aristotle* his curiosity with the like punishment, although not drowning or overwhelming him with waves, yet causing in him such melancholy for not comprehending its nature, as procured his death !

We have warrant from holy Scripture, that too much curiosity to knowe things, is sent downe upon men as a plague, in so farre, that *Herod* esteemed Saint *Paul* distracted through his too much learning; and they are scarce otherwise, who thinke by their shallow capacity, to comprehend the height, length, and depth of *G O D S* workes, which are so much the rather His, by how much the lesse we understand them.

And it is observable that our beliefe is settled upon things incredible to humane reason ; to which a humble submission of spirit attayneth sooner, then a curious inquiry.

Thus Saint *Augustine* esteemed, *G O D* better to be adored, *bene sentiendo, quàm multum loquendo* ; In such sort, that *Simonides* the Poet, who was desired to describe God, required first one day to thinke upon the subject ; and then another, lastly a third ; and in the end confessed ingeniously, that the more he studied it, the further

Because curiosity to know, is a plague, therefore our faith is settled upon things incredible to human reason.

The Gods of
the Ancients
were pourtrai-
ted with their
fingers upon
their mouthes,
and why.

further he was from comprehending it, and the more he searched into that Theame, the lesse he understood it; which gave us well to understand how wisely the *Egyptian Priests*, *Indian Brachmians*, the *Persian Magi*, the *French Druides*, and all the old Philosophers and wise men did, whocaused to mould and pourtrayte their gods with their fingers upon their lippes, to teach men (their Adorers) not to bee too curious inquirers after their Nature, or rashly blabbe forth what ever they imagine of them, least that being discovered, they should have beene found in the end to have beene but men, either worthy in their time for warre or peace, and after their death, deified.

Micat inter omnes

Inlimum fidus, velut inter ignes

Luna minores.

Whereas the Nature of our great *God-head* is so profound a gulf, and hid mystery, that as the Sun beames dazeleth our mortall eyes, being too stedfastly fixed upon them; even so doth over-curious inquiry after *God*, and such other abstruse mysteries, obfuscate the dim eyes of our understandings: And as the Sun cannot bee seene but by his owne light; So no more can *God* be knowne but by himselfe.

Section.



Section 8.

Too great curiosities condemned; and a moderation to be used in them prescribed.

THUS then, as in Divine and heavenly mysteries we should not be too curious, but should rather content us with what is revealed; So should we not in our worldly affaires busie our selves too curiously and perplexedly: For as *Gods* secrets are not disclosed to the highest and most eminent amongst men, but to the meaner and ignorant sort; even so fortune and chance of this world falleth and followeth not alwayes the wisest and most curious, but on such as for the most part doe not pursue them; and these we doe tearme, foole happy or more happy then wise.

As in Divine mysteries we should not be too curious: So should we not in any worldly businesse.

Dum vitant stulti vitia, in contraria currunt.

When I blame the extremity of curiosity as a master-vice, it is not for that we should with the Stoicks, lull our selves asleepe, and cast off even allowable care concerning the events of our affaires in this life; as to remitt and put over all to destiny; which is no lesse blame-worthy, then with the Epicureans, to eat and drinke, as if the morrow we were to die: For as the golden mediocrity, and commendable vertue consisteth betwixt extreames; even so (I say) avoyding both evils, this meant good may be admitted, to be curious

As we should not be over-curious; so should we not be lesse curious with the Stoicks referring all to destiny.

P

after

after all such things as concerne our vocation and trade of life : And for this indeed wee have warrant ; but so, that we referre the event of all to the alseeing providence, who best knoweth our wants, and can best helpe them.



Section 9.

How G O D disappointeth the expectations of the most Curious ; And that the most subtile spirits runne into greater errors then the meaner doe.

As the most curious craftsman is not ever either the wisest or the Wealthiest ; So the most curious heads are not they to whom God manifests his secrets.

I Wonder, since neither the subtilties of this present Age, nor the wisdom of our predecessors, neither Prophets of old, nor preaching of new, no not their most curious inquiries could rippe up the causes and notions of things, wch it hath pleased the Everliving to worke both above and below the concavity of the Moone, in a manner to dazell mens eyes, and to make their profoundest wits stoope under the wonders of His workes ; Why then should our curious Spirits rack their braines about the resolution of such questions, which, as they are difficult to be solved, so are they dangerous (I may say) and impious to be propounded.

And it is great presumption for mortall men to reduce under the precinct of humane sciences those things the knowledge of which G O D out of His infinite wisdom

wisedome hath thought fit not to impart to mortalls.

For as God is above nature, so worketh He after His owne will, either supernaturally, or else by some secret power of Nature unknowne to us ; To which point, the most subtile of all the Ancient Philosophers some times were driven.

God as hee is
above Nature,
so worketh he
beyond Nature
some times.

And yet these great spirits who could not content themselves but with the speculation of such things, as fell not under the reach and capacity of the weaker, and meaner sort ; did sometimes in the meaner subjects stumble most miserably.

So while they ranne above the heavens, roaving and tormenting themselves with their numbers, matter, force, motions, sounding, depths and centre, yea, and turning the circumference of the earth, overskimming the Seas, saluting the Antipodes, and bringing novells from their Courts, and of their Caballs, dreaming with themselves (as *Archimedes* did) that they might remove the Globe of the universe out of its owne place, and turne it about, if they had whereon, and wherein to fixe their machins ; they in the end (I say) doe stumble, and fall in grosse absurdities ; like those men who per-adventure, having sailed the better part of their lives, upon the stormy Ocean, and past her greatest dangers, may neverthelesse at last be drowned in a little Brooke.

Great and sub-
lime spirits
stumble more
vilely, then
the meaner
sort.

Medium tenuere Beati.

Section 10.



An inducement to the studie and search of the secrets of Nature ; Of the Needle in the Sea compasse ; Of the inundations of the River of Nilus ; And from whence it hath its source and beginning ; Of the severall dispositions of men ; Why continuall burning hills and Mountaines doe not diminish, &c.

Dion: Areopagita's observation of the Eclipse at our Saviours suffering.

BVt on what more fertill and spacious a field can Curious Spirits extend, and expatiate the wings of their fancies, then the discovery and searching out of the secrets of Nature, as in those things which are obvious to our outward senses, leaving those contemplative mysteries afore spoken of, to the omniscious Author of them, for when mans curiosity hath reached or rather dived into the depth of the secrets of the heavenly bodies and their changes; then the Creator, to checke (as it were) their curiosities and presumption, altereth that orderly course that they presumed to have gathered thereby; which made *Dionysius Areopagita*, seeing the Sunne Ecclipsed at full Moone, when our LORD and SAVIOUR suffered, contrary to their Astronomicall position, to cry out, that either the God of Nature suffered at that time, or the course of Nature was inverted, or the Machine of the universe was

was to dissolve; with other the like examples knowne to all that are versed in the Scripture. Now to speake a little more of the incertainty of these curiosities; *Mercator*, and other more moderne Geographers hold, that the needle in the compasse, doth vary more or lesse from the Pole, as the place of observation is more or lesse distant from the *Azerick Meridian*, from whence it hath its longirude; Whereas the more ancient tooke its longitude to be from the *Canaries Meridian*. Some againe, as *Herodotus*, will the River of Nilus, to take its source and beginning from the forked top of the Mountaine *Sienna* in *Ethiopia*, from whence (saith he) doe surge two admirable Currents, one towards the South and *Ethiopia*; the other toward the North and *Egypt*; I call these currents admirable, because the Whirlepooles and bublings in these waters are so great, violent and absorbing, that though a Boate were there tyde with most strong Cables, yet they would suck it in and ingurgitate it! Others will have its inundations and Increment, to issue from the hills of the Moone in *Arabia*, *A montibus luna Arabia-Australis*: whereupon such abundance of Snow falleth, that it liquifying and melting, runneth so abundantly and violently downe, that it procureth these wonderfull inundations: *Plinius* againe (if *Sabell*: mistake not lib. 3. *Eneid* 2. 1.) maketh its source and debording to flow from *Affrick* crossing *Media*, as the *Danube* doth *Europe*; Or else from *Mauritania* the lesser, instancing for possibility that the melted snow descending from thence causeth the overflowings in *Egypt*; from whence (say they) serpentine and gliding through a vast tract of ground in

Opinions of
the needle in
the compasse.

Of Nilus, her
source and in-
undation.

Mens dispo-
sitions.

Burning hills
and Moun-
taines.

the bowels of the earth, that striving (as it were) to be refreshed with new aire, it bursteth out in *Mauritania Cesariensi*, where it runneth the space of twenty dayes journey againe under ground; from whence it issueth againe and plentifully stretcheth it selfe through *Ethiopia*, with many meandres and turnings, and separateth *Aegypt* from the rest of *Africk*; where finally through most rockie, Precipitious and Declivous Mountaines with most hideous rumbling, and terrible noyse, it casteth it selfe down where the *Catadupa* dwell; and running through *Aegypt*, disburdeneth it selfe, into the Mediterranean Sea. Others againe (not without great contradiction) doe variously picture out the severall dispositions of men according to their severall Countreyes, whereof read *Bodinus* in his sixth Chapter *lib. 5.* of his Republick: where he saith, that those who are borne towards the South are more humane, ingenious and affable then those towards the North: with severall other distinctions which hee setteth downe in that Chapter: Some too, give the reason why so many great hills in severall places of the earth doe incessantly burne, without great diminution of the earth or their greatnosse, to be because the Sea winding it selfe in by secret Conduits, doth continually arouse, or water the Sulphureous yaine which subministrates fewell to their flame; as the endlesnesse of the combustible matter is the cause of the not diminishing of the earth: with many of the like, as may bee read in severall authors. Wherefore thus much for the contemplative and conjecturall curiosity; Now to the Practick.

Section.



Section II.

Of Christopher Columbus his Practicall Curiosity in his discovery of the new World or America.

NOW lastly, to conclude this treatise with Practicall curiosity, in stead of many, I will onely touch that so fortunate and so much famed one of Columbus in the discovery of *America*; He was an *Italian*, borne in *Genoa*, whose most pregnant, curious and searching wit, farre excelled all that ever were before him, in the like attempts; This worthy *Columbus* (I say) imagining, that since the Globe of the universe, the celestiaall Spheares, Aire, Waters, and all superior bodies were round, concluded with himselfe that the earth could not bee triangular, as in a manner it then was when hee knew no other lands, but *Europe*, *Africk*, *Asia*, but circular and round also; as the rest of the Elements; and so consequently that there behooved to be some vaste tract of land, yet unknowne, which should extend it selfe from South West to North West; Which conception of his he thus fortified.

Columbus first intention, and motive to his voyage.

That seeing of three hundred and sixty degrees, which the world containeth in longitude, there being onely one hundred eighty filled up with land; that the Almighty Creator would not have suffered from

Columbus his reason.

all beginning the waters to overflow all the rest.

His voyage.

His policy.

The cause of
dearth since
Columbus voy-
age.

But not content with this contemplation onely, he never gave over till he put the tryall of it in practise; wherefore in the yeere of God, 1492. aided and therefore furthered by the King of *Spaine*, he set to sea, directing his course to the *Canary*-Islands (whereat from *Spaine* he first arrived) towards the Southwest: but having spent many dayes upon the Sea without sight of land, to the great toile, labour, and anguish of his men, who began to mutine amongst themselves and despaire of ever returning home, much lesse of attaining their adventure; he was driven to his wits end, whereupon politickly, (and as it were prophetically) he strove with all probabilities to assure them that within two or three dayes, at furthest, they should discover land; which the more confidently he undertooke, because (saith my Author) he had perceived the colour of the clouds then tending towards him, to bee more white and more purified like land-clouds, from whence they behoved to come, then those that meerely proceeded from the seas; which conjecture of his proved true; for it pleased God, that the third day thereafter they discovered this land they sought for, of which, with its length, bredth, nature, &c. there are whole volumes extant; and from this countrey it is, that the gold, money and ware be transported, which hath caused our dearths; all things in the dayes of our forefathers, being bartered one for another as common merchandises.

This mans spirit (no question) was warmed with a more celestially fire than ordinary; who first of all be-
for

fore him, did both invent and execute so glorious a designe, and profitable an enterprize, as the discovery of a new world. Neverthelesse, there hath not wanted some; who, to bereave him of this honour, doe gather out of *Plato's* dialogue twixt *Critias* and *Solon*, Columbus's worth depraved. that there was some knowledge of this world in former times; because so it is, that the *Egyptian* Priests of the City *Sais* reported unto him, that they had found in ancient Monuments, some mention of a terrible great Island, called *Atlantida*, which was opposite, or went off and on, with the straits of *Gibraltar*, of old called *Hercules Pillars*; but that it was taken away by *Deucalions* deluge, as we reade of *Sicily* to have beene rent from *Italy*.

Which admit were true: yet who, amongst the His vindication. sonnes of men, before *Columbus*, did ever adventure to discover it? nay who so thinketh it to be an Island, mistaketh farre: for our moderne navigators have found it to be continent almost, and firme land; as joyning to the East-Indies on the one hand, and to those Lands under the two Poles on the other: moreover, whereas *Sicily* is removed from *Italy* but a very few miles (if ever they were conjoyned) as *Ireland* is from *Britanne*; this *America*, or, as they would have it, *Atlantida*, is distant from the mouth of the straights, where (they say) it was taken away, some thousands of miles.

I know too, how *Peter Martyr*, cap. 1. and first decade, attributeth the first discovery of this to a Spaniard, to defraud *Columbus* of his due praise and honour: and how some have gone about, to take away from

Columbus de-
nomination of
Americus con-
ferred on *Ves-*
pucius.

Here againe
vindicated.

Another asper-
sion on him.

from him the denomination of that Countrey, attri-
buting it to *Vespucius*, calling him *Americus*, because
he entered farther in the firme land than *Columbus*;
who glad of his first discovery, made no long stay
there: so that at the second setting out of a new Na-
vie, this *Vespucius* went further in, *Egregiam verò lau-*
dem: as if the honour were not the first attempters:
so Sheepe beare wooll, and Oxen plough, although
not for themselves. Some too, say, that *Columbus*,
being a learned man, gathered this enterprize from
some verses in *Seneca* in his *Medea*,

Venient annis secula seris.
Quibus oceanus vincula rerum
Laxet, & ingens pateat Tellus,
Tiphisque novos detegat orbes,
Nec sit terris ultima Thule, &c.

And why not? for this same (if it so was) argued
the sublimity of his spirit; for who, I pray you, be-
fore him, ever marked or gathered the like from them
to put that Theory and contemplation in practise?
Then, sure it is, that none of the ancients, *Greeke* or
Roman whatsoever, can in this be compared or balan-
ced with him,

Section



Sect. 12.

The conclusion of this Treatise of curiosity ; containing a singular curiosity of Livia, Tiberius Cæsars wife.

BVT ere I fully close up this Treatise, and where I might bring before you many ; let me onely present you with one woman, whose singular curiosity was admirable, or (if you will) casuall ; it is reported by *Cuspinian*, an ancient and famous Author, in the life of *Tiberius Casar* ; that *Livia* being withchilde of *Tiberius*, fell into an inquisitive curiosity, to know whether the child she went withall should prove male or female: wherupon, repairing to *Scribonius* the Astrologer, she was advised by him to take an Egge from under a sitting Hen, and to hold it so long betwixt her hands, till (through the heate of them) the egge should burd and breake the shell ; which accordingly she did, and thereout came a Cock-chicken : whereupon the Mathematician divined, that she should be delivered of a man childe ; who as the bird was crested, should beare a crowne, and command over others : and so thereafter it happened.

Livias curiosity.

OF



OF
DIVINE
PHILOSOPHY,
AND
MANS FELICITY.

Section I.

The Sunne and Moone in the Heavens compared to the understanding and will in Man. Aristotles definition of happinesse: The distinction of understanding and Will; and wherein ancient Philosophers placed their chiefe felicitie.



AS there are two Lamps in the heavens which enlighten this lower world, the Sunne, and the Moone: So there are two principall faculties which rule in Man, the understanding and the will. For as the Sunne in the Firmament, is as Master of the rest of the Stars, giving life to the Earth by the mediation

The understanding and reason in man, is as the Sunne in the firmament.

Will, as the
Moone which
should have
no light but
from her Sun,
reason.

ation of the Ayre; so this understanding ruleth the rest of the faculties of the minde; and as the Moone hath little light of her selfe (as being but a diaphanous body or susceptible of light) but what it borroweth from the Sunne, as the wife hath her lustre from her husband; so should not the will obstinately will any thing, but what the cleerenesse of the understanding foreseeth to bee conducive unto us; and what hath passed and bin sifted through the judgement; though otherwise we see it oft times come to passe. The Philosophers have a much disputed question, in what our happinesse consisteth, Whether in the actions of our understanding, or in those of our will (which indeed are nothing else but that which we terme contemplation and action) distinctly in any one of them, or in both conjunctly.

What happines
is, according
to Aristotle.

For seeing Aristotle defineth happinesse to bee an operation of the soule according to most perfect vertue, and that elsewhere he calleth it, the best and pleasantest thing that is; it cannot be then but one; because, what is spoken superlatively, is peculiar but to one onely: so it would seeme, that this felicity or happinesse consisteth onely in the operation of one of them and not of both; the one and the other way being both for the object and their operation the most pleasant and perfect things we have: by the operation of our understanding or intellect, we have the speculation and contemplating of God, and by the will his love.

By our under-
standing we
know God, by
our will we
love him.

Howsoever by this it would seeme, that it consisteth in some one of the two onely; yet if we have regard to reason which enforceth the placing of it so,

or

or the Texts in Scriptures, where it is said, that our happinesse consisteth in the contemplation of God, or in his knowledge; we shall finde, that neither this perfect vision and knowledge of God can be separated from his love, nor his love from the knowledge of him. Wherefore it must consist of both joyntly.

But if by one of the two simply a man were made happy, then he could not totally, but diminitively be called so, which should not be thought; seeing nothing which is not entire ought to be attributed to felicity, because it should not be defective in any thing: whereupon we may conclude, that the perfect felicity whereof both the Philosophers of old have treated, and here now we handle, is neither divisively an action of the intellect according to prudence and wisdom, nor yet of the will, according to morall vertue, as *Aristotle* in his *Politicks* alledgeth; but one combined of both according to perfect vertue.

What, and wherein consisteth the old Philosophicall felicity, so much spoken of, being that whereof we now treat.

For if the question were betwixt the two, to which of them the prerogative and pre-eminence should appertain, the matter were very ambiguous.

Section 2.

That our felicity consisteth in the actions of our will is confuted: Aristotles opinion hereupon. A theologicall solution on it, seconded with a Philosophicall; and an agreement of both to solve the difference.

IT is true, that the understanding goeth before the will, whereas will must waite for information from the understanding; seeing we cannot well will a thing we

That our felicity cannot consist in the actions of our will.

we understand not, *Ignoti nulla cupido*. Besides this, seeing our beatitude and felicity consisteth in the acquisition and fruition of the end of the thing we aime at : certainly that cannot be by the act of our will, although it hath goodnesse it selfe for the object ; considering, that Will, almost even in the most regenerate is so depraved, that without the grace of God, we cannot so much as will any good thing, without the preceding judgement of reason, in regard that Will is defined to be a ratioll appetite ; consequently it is, that even in those who say that their will standeth for a reason, yet in their judgement there wanteth not their judiciary election.

For *St. Bernard* in his worke of Grace and Free-will affirmeth ; that Will, to what hand soever it turne it selfe, hath reason accompanying it ; yet not that it is alwayes guided with true reason, but that at least it is never without its owne reasons. These considerations being had, it would appeare, that this our happinesse should be placed in the understanding, and not in the actions of our will ; except we take them so, as they have a reference to reason or understanding, in which they are rooted, or (at least) should be.

It would seem that our happinesse did not consist in the actions of our reason and understanding, but in these of our will.

But if that be true on the other side, as certainly it is, which *Aristotle* in his *Ethicks* affirmeth, that our happinesse perfecteth it selfe by the most noble operation of the most excellent part upon the excellentest subject ; sure it is, that the noblest part of a man is his soule, the most excellent faculty whereof is his free-will ; whose most lively operation is love, and whose most worthy object is God : so that from thence it would follow, that our happinesse consisteth in

in the love of God, consequently in the operation of our will.

Now that the will hath the more excellent power then the understanding, is cleare; because that faculty (whose habits, operations and objects are more noble than the others) surpasseth the other: but so it is, that will surpasseth in all these, for knowledge and wisdom must give place to love and charity; because it were better never to have knowne God, then having knowne him not to love him.

Reasons in fa-
vours of Will.

Besides all this, seeing the actions, which are done, doe depend upon the nature of the agent, the actions of the will, are so much more noble, then those of the understanding, in how far the Intellect may be necessitated by the object of it, and by forcible and convincing reasons, which it cannot withstand; whereas will is free and cannot bee forced; for then it should rather bee a nilling (to say so) then a willing.

Moreover in good Philosophy an argument taken from the nature of opposites is forcible: by the like reason I say then, if the understanding were better than the will, that then the contrary to the understanding were worse than the contrary to the will; seeing contraries are the consequences of contraries: but so it is not; for the contrary of will is worse than the opposite to the Intellect; because the hatred of God, which is opposite to the love of God, which dependeth upon the action of will, is worse than the ignorance of him. *Epist. 2. Pet. c. 2.*

Now as the actions of the will doe surpasse them of the understanding, so doth the object of it; for
Q goodnesse

The actions of the will, the object of it seems to be more noble then these of the intellect.

goodnesse which is the object of the will excelleth verity the object of the intellect, as farre as deeds doe words; seeing verity is nothing else, but an adæquation or conformity of our conceptions with the words we utter.



Sect. 3.

Which of the three faculties of the soule, Understanding, Memorie, and Will, is the most excellent.

THe three principall faculties of mans soule, understanding, memory, and will, have their severall operations: the understanding playeth as it were the Advocate, memory the Clerke, and will the Iudge; but who knoweth not that the Iudge is alwayes above the other two?

To say then that will cannot well make election without preceding sciscitation from the Intellect, is oft times true; but not alwayes: for sometimes without the information of understanding the will worketh, *Et nunquam visa flagrabat amore puella.*

In a word, since the actions of the will are more noble then these of the understanding, it being true (as it is) that actions worke not but with a regard to their object: the object of the will being an universall good, and that of the understanding but a particular, under the restriction of verity; thereupon it followeth, that the object and action of the will (being the better) in them consisteth our happinesse.

Section,



Sect. 4.

Liberty and compulsion defined; that the will is prompted by the understanding, and that the adequate object of it proceedeth from thence; At what the will and understanding chiefly aime, proved to bee the glory of God.

ARguments in the behalfe of will, are grounded most upon the freedome of its operations, whereas these of the understanding are coarcted and limited as is said. Yet when all is spoken, our understanding wanteth not its owne liberty, at least in so farre as liberty is opposed to compulsion.

For if there were nothing compelled but that which is repugnant to the inclination of the thing, certaine it is that inclination to any thing agreeth very well with the intellect.

Now whereas it is said that the object of will which is good, supposeth that of the intellect, which distinguisheth the veritie of the thing: we must consider; that the will of it selfe could not have willed that, except first by the understanding it had knowne it to be such; so by this meanes the will hath no further regard to the object of it, in so farre as it begeth felicity and happinesse, then the intellect hath; and although, by way of understanding, it bee made the adequate or proper object of the will, yet it ceaseth not to bee the object of the understanding also; as having all things that are, and which may fall un-

Will and understanding
how coincident.

der our capacity, for object; and consequently, it should be thought nobler and freer then the will, in regard of the boundlesse object which it hath in its extent.

This question of felicity consisting in will and understanding is coincident with that Theologicall question, of Faith & good workes.

But to leave the decision of this question to better Divines, seeing it falleth neere on the controversie of faith and good workes (by which together wee attaine salvation, as by the operations of will and understanding we attaine felicity)

I say, that all men naturally doe desire for the well of their will, to be happy and have contentment; and for the exercising of their understanding to have a marke to ayme at, which all Philosophers allow to be true; yet few of them came ever to the just point of both. It is necessary then to have a butt, and to have that good, and to have one, because God hath given us an understanding whose perfection is wisdom, and so one; to which as at a marke our understanding addresseth all her powers, and bendeth perpetually all her forces: againe to have it good; because hee hath given a will whose perfection is goodness.

And certainly, God who is wisdom and goodness himselfe, had an eye unto both these in the creation of all things; For seeing the Philosophers confesse, that nature doth nothing amisse, what should then bee thought of God, whom nature serveth, is but as a handmaid.

Now as God who is the beginning, middle and end of all things, hath had no other end in his workes but himselfe; Even so, we his Creatures, should have no other ayme nor end in our actions but him only, seeing we have both our beginning, continuing and ending

ding from him: Naturally all reasonable creatures doe wish well to themselves, and therefore propose some marke which they ayme at as their peculiar good: which can be nought else but the end for which man was created, to wit the glory of God, who hath made all things for it: So that in striving to come thither, hee attaineth to his owne proper end and good, which is the good hee aymeth at and naturally seeketh.

By this meanes if we find either the principle butt of mans ayme or our Sovereigne good, wee have found both, the butt hee shooteth at as the object of his understanding, and his good for the object of the will; hee therefore should apply all his endeavours to this end, and all his desires to this his good.



Section 5.

That all Philosophicall precepts have come short to demonstrate true felicity; Philosophicall distinctions to know what is good of it selfe in Sciences; yet all weake to illustrate wherein mans true happinesse consisted; which is Philosophically agitated.

IF man had persisted in his first integrity, hee had not beene now to seeke this felicity; for then his understanding clearely perceaved truths, and his will readily desired all good things.

But since the losse of the first, the ladders of the

The end of all
Sciences is to
know, which
the Philoso-
pher saith is
good of it selfe.

Philosophers in all their sciences have beene too short to lead us to the latter: for although their end is to know (which *Aristotle* affirmeth to bee good of it selfe, as by Morall Philosophy to discern good from evill, and right from wrong; by physicke, health from sicknesse; by the Mathematicks, equall from unequall proportions: by Astrology, the course and force of the Starres, and the celestiall signes: by Geography the length and compasse of the earth; by the Physickes the naturall principles and causes of things: by Metaphysicks supreme essences, good and evill spirits) yet none of all these could leade us to that right knowledge that I intend here.

For all their sciences did conclude only to us, that a mans happinesse consisted in a quiet and pleasant life, whose tranquillity is not interrupted with feare, want, sicknesse and the like, but all these will not serve our turne; for their worth passeth no further than this life and the body, and so must perish; but true happinesse never hath an end.

The proper-
ties of our So-
veraigne hap-
pinesse.

In the handling then of this felicity and happines it must bee remarked, that it is common to the whole species of mankind, and therefore as all are borne capable of that end, so all should tend to that butt.

Man feareth nothing more then his end (it being of all terrible things the most terrible) nor wisheth any thing more earnestly then ever to bee, and this Sovereign good wee aspire unto is the end of man; beyond which we shall crave no more; for if there were any thing further to be craved, it could not be our end, because beyond the end there can be nothing; or if we craved any thing further, it could not be our Sovereign

raigne good ; seeing the greatest property of this beatitude is as to crave nothing further, so not to feare the losse of that we have, and withall to be content with that which we possesse.

Of necessity then, that which must bee our Sovereigne good, behoved to be agreeable to the nature of man, particular to his species, yet common to all the individua of that kinde : And in so farre as it is our Sovereigne good, it must bee universall, perfect and everlasting. Thus having found out the nature of this our beatitude and felicity, let us a little run over the world, and al the Philosophers, to see, if either the one hath in her bosome, or if the other hath found it out by their curious inquiries.



Sect. 6.

That wealth and Honour cannot bee esteemed to be our supreme good or felicity, and the reason therefore ; Philosophers confuted by their difference of opinions : Opinions of severall sects of Philosophers concerning felicity instanced to that effect.

THe things of this world which should seeme to make a man most happy are these two, wealth and honours ; but alas ! the one is winde, and the other clay ; they content not all men, for all men attaine not unto them, and yet they that have them, are not alwayes content, seeing they who have most, doe for the most part still crave more.

Wealth and honour cannot be our happiness.

Lastly they perish and decay; and the feare to lose them is more galling then the pleasure almost to enjoy them is solid; by which meanes they cannot bee our soveraigne good, seeing these doe neither limit our wishes, nor fulfill our wills: they are not common nor permanent. Vigour, strength and beauty are but blossomes of youth, which decay with age.

The different
opinions of the
Philosophers
upon this pur-
pose.

As for the Philosophers, looke how many sects and diverse orders they had, so different were their opinions. *Aristotle* in his *Ethicks* alleadgeth two sorts of happinesse; the one civill, and Politicke, which consisteth in the prudency of our actions; the other private and domesticke, which may be thought contemplation: but both these leadeth us not to the end we hunt after, nor yet are they the end themselves. *Plato* indeed in his *Phaedon* commeth nearer the truth, when he saith, that beauty, health, strength, wit, doe corrupt and make us worse; so they cannot bee our chiefe good, unlesse conjoynd with the Gods goodnesse, whereunto *Aristotle* (both in his first booke *De celo*, and in his worke *De mundo*) agreeth. But I list not hereto fill this short Treatise, with long and tedious allegations of authorities.

St. Aug. in the 19th booke of the *City of God*, in the 1. chap. reports out of *Varro*, that there was in his dayes 288. different opinions upon that matter, but few or none that hit aright.

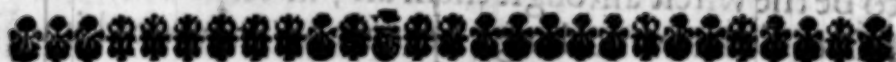
For as in Mathematicks, a little error in the beginning becommeth great in the end; as the mistaking of one in a million in the beginning; falsifies the whole account in the end: so fared it with them; the further they went, the further they strayed. *Socrates* indeed

indeed came neere (by the Oracle of *Delphos* thought to be the wisest amongst them all; in respect he confessed, he knew nothing, because he knew not himselfe) when he saith, that if any man may be termed happy, it must be he who hath a cleere and undefiled conscience, whose tranquill and secure ignorance is not perrurbed with the worlds cares, but being void of coveting and feare, which molested others, neither needeth nor craveth any more.

Solon thinketh, that no man can be happy before his death, seeing the end crowneth all; considering belike, that as a Ship which hath sailed the vast and spacious Seas, when to appearance all danger is past, may peradventure make shipwrack in the haven: so might a man whose life had beene past in pleasures and security, make a tragicall end, as monuments of all ages can beare record: and the particular example of *Cresus* King of *Lydia*, who in his dying houre called on the name of *Solon*, attesting this saying of him to be true: and this same *Solon* hit the marke a great deale neerer than *Epicurus*, who placeth our felicity in the pleasure of the body; whom the *Stoicks* deride, saying, that there was no rose without its prickle, and so they fettered it in the peaceable government of morallvertues. From these against the *Peripateticks*, and *Academick* Philosophers doe differ, amongst whom, divine *Plato* hath come neerest the foresaid marke.

The Epicureans and Stoicks, their opinions,

Section



Sect. 7.

The later Philosophers have aimed neerer the definition of true felicity than the more ancient; and their opinions specified. The finall and true scope of mans felicity, is illustrated with an exhortatory conclusion to all men for endeavouring to attaine unto it.

The latter
Philosophers
have refuted al
others establi-
shing their
owne.

THE later Philosophers doe cleare this matter more fully; wherefore more worthy of citation, as *Seneca, Cicero, Plutarch, Iamblicq, and Porphyre*, all which have not onely refuted most wittily the *Epicures* and *Stoicks* touching their opinions, but have shewen that they and all the others were onely disputable opinions, and have concluded, that the beatitude of man consisteth in the knowledge and union of us with God: but little knew they that the first knot of our union with this God was untied, and therefore the question is harder now; how we are to be reunited againe.

To cast up here the opinion of *Aristippus*, who placed our happinesse in *Venery*; or of *Diodorus*, in the Privation of paine; of *Calypso*, and *Dinomachus* in Pleasure and honesty together: of *Herullus*, in the knowledge of Sciences, esteeming that thereby we might live both contentedly and prudently: of *Zeno*, in living according to nature; and so forth in the rest; might bee enough to try the readers patience: seeing of these things which they esteemed happinesse

ness, some were common to us with the Beasts; others were not common to all, and so they failed in the rules of our felicity.

This being so, let us now at least finde it out, and so in a word conclude. Briefly, as all happinesse at first consisted in the union of man with God; so our happinesse renewed, consisteth in the reunion of us with the same God, from whom we have fallen; by which reuniting, we shall both contemplate his face, and love him, in whom we shall have our joy accomplished, wherewith the heart of man can never here be satiated, beyond which we shall crave no farther: this felicity is not peculiar to the great ones of this world above the meaner, but equally obtainable of all who in humility of heart, and uprightnesse of conversation, doe imbrace I E S V S the Sonne of G O D, by whom onely we may be reunited, since he is the onely and soveraigne Mediator, blessed from all eternity.

The conscience, which hath its assurance grounded upon this foundation, and rock of verity, may call it selfe truly happy, because it hath the earnest in this life, of that great felicity which is to come, whereby it possesseth it selfe in peace which passeth all naturall understanding (one of the surest tokens of this happinesse) neither perturbed with the terrors of the superstitious, nor yet with the carelesnesse and lulled security of the Atheist; but in a sweet harmony betwixt the two extremes, it retaineth the golden mediocrity.

This is that soveraigne felicity to my judgement, whereby a man liveth contentedly here, whatsoever befallerh

Finally, what
our true felicity
is, and
wherein it
doth consist.

By this soveraigne felicity, a man liveth in tranquillity, and dieth in peace.

befalleth him; and dyeth in peaceable assurance of that happinesse which is to come; which soveraigne felicity we shall attaine unto, if by a lively faith wee embrace the Sonne, and live according to his will; and so put in ure and practise that great Canon of Religion, to live and beleve well; espousing by that meanes our will and understanding together.

our happy condition, from whom we have fallen, us with the same God; from whom we have fallen, by which returning, we shall both contemplate his face, and love him, in whom we shall have our joy accomplished, whereas the heart of man in this world be fastened, beyond which we shall crave no more: this felicity is not peculiar to the great ones of this world above the manner, but equally obtainable of all who in humility of heart and uprightnesse of conversation, do imbrace IESVS the Sonne of God, by whom only we are redeemed, since he is the only and soveraigne Mediator, blessed from all

The

The conscience, which hath its alluriance grounded upon his foundation, and rock of verity, may call itself truly happy, because it hath the earnest desire of that great felicity which is to come, whereby it possesseth itself in respect which passeth all natural understanding (one of the surest tokens of this happy condition, that it is not contented with the rewards of the present life, nor yet with the endlesse and unchangeable glory of the Aethers; but in a sweet harmony between the two extremes, it retaineth the golden mean.

This is that soveraigne felicity to my judgement, whereby a man liveth contentedly here, whatsoever befalleth.



THE
CONSONANCIE AND
 agreement of the ancient *Phi-*
losophers, with our *Chri-*
stian Professours.

Section 1.

*The difference betwixt the Physiologer and Physician;
 compared to that betwixt the Metaphysician and divine.
 Some of Plato's opinions not farre dissonant from our
 Christian: The multiplicity of Heathenish gods: That
 Plato came neere the description of the Trinity.*



So, where the *Physiologer* leaveth to
 contemplate, there the *Physitian*
 beginneth; so where the *Metaphy-*
sicians end, there the *Divines* com-
 mence their study, not to follow
 forth their doings, but, to refine
 their grosser rudiments; like can-
 ning Painters, by the subtiltie of their Art, giving life,
 breathing,

A Simile.

breathing, and in a manner, moving unto a picture, with a more grosse Painter had but rudely delineated.

It was of old held for a truth, *Platonicos paucis mutatis fieri posse Christianos*: That with the change but of a very point, the Platonicke Philosophers might be brought to be Christians; from whence *Plato* was called Divine.

Difference betwixt Platonic and Christians.

Who so shall revolve the monuments of his workes, shall find that, not without reason, hee hath beene so styled: for all other sects of Philosophers, have but like men in Cimmerian darkenesse, gropingly stumbled, now and then, upon the nature of the true God-head; and every nation in those dayes, had their severall, and those strangely imaginarie Gods, distinguished in so many rankes, imployed in so many businesses, appointed to so many different and sometime base offices; that their number, in fine, became almost innumerable! In the meane time this man, soaring above them all, hath more neerly jumped with our beliefe touching the God-head. In so farre that *Amuleus* that great Doctor in Porphyre his Schooles having read Saint *Iohn* the Evangelist his proeme, was strooke with silence and admiration, as ravished with his words; but at length burst out in these termes: by *Iupiter* (saith he) so thinketh a *Barbarian*, meaning *Plato*; that in the beginning the word was with God, that it is this great God by whom all things were made and created.

Multiplicity of Gods, amongst the heathen.

The Trinity shadowed by *Plato*.

Now that this is true, This much I find, in his *Parmenides*, concerning the nature of the God-head. That there are three things to bee established concerning the maker of all: which three must be coeternal,
viz. That

That he is good ; that he hath a minde or understanding ; and that he is the life of the world.



Section 2.

Of Gods Creating and conserving of all things in an orderly order ; Plato's Reasons that the world hath a life. Aristotles opinion of God ; hee is prayesed, and at his dying preferred before many doubtfull Christians.

THis King or father of all, which is above all nature, immoveable yet moving all ; hath in him an exuberant and overflowing goodnesse ! From the Father and goodnesse, the minde or understanding proceedeth, as from the inbred light of the Sun commeth a certaine splendor ; which minde is the divine or Fathers Intelligence, and the first borne Son of goodnesse.

From this minde (the life of the world) floweth a certaine brightnesse, as from light ; which breatheth over all, distributeth, yeeldeth, and conteyneth all things in life ; So that the world which consisteth of foure principles, or elements, comprehended within the compasse of the heavens, is but a body, whose partes, as the members of a living creature, cohering and linked together, are moved, and doe draw breath by benefit of this life or spirit (as he thinks.) This Virgil in his sixth of the *Aeneids* aymed at when he saith,

Principio

*Principio cælum & terras, camposq; liquentes,
Lucentemq; globum lunæ, Titaniaq; astra
Spiritus intus alit, totamq; infusa per artus
Mens agitat molem, & magno se corpore miscet.*

Plato his reasons why the world liveth.

By his opinion here, as all animalls and living creatures doe live every one by their owne life, so the world as of greater dignity then any of the rest, hath a more noble life whereby it moveth, then they: And in effect, many pithy reasons he produceth both in his *Epimenides*, in *Timæo*, and in the 10. Booke of his *Lawes*, to prove the world to bee an animall, both from the constant and perpetuall course of the heavens; from that naturall heat of the Sun, seeing the Sun and man ingender man, to which, as to all the Starres, he attributeth a soule, by which they live; but so, that as they are of a delicate and transparent body, so live they a most blessed life: yet not that they are moved with an other life then the whole world is.

For as in the body of man the soule, whereby our sinewes, bones, flesh, bloud and all, are moved is one and the same, notwithstanding all the members be not alike vivificated; so is it there.

For what reason is there (saith he) that man who is called a little world, and encompassed of the foure elements, as well as the great world is, should be said to live, and in the meane time to deprive the greater one of life; Seeing the motion of the heavens, and of her lights, the moving of the Seas, the seasons of the yeare, all keepe their equall and constant courses? Alwayes as *Plato* here before setteth a Trinity in the God-head, the Father; the minde, or *mens* which is

is the Son; and the life of the world flowing from them as the Spirit, and as brightnesse from light: So in his *Timæo* he avoucheth that there is in the heavens one certaine *Ens*, which is ever alike unto it selfe, without beginning or ending, which neither needeth, nor taketh helpe of any; which can neither be seene by mortall eye, nor yet perceived by any mortall sense, but onely to be contemplated by our minde and understanding. So *Aristotle* in his *Metaphysicks*, and in his workes *De mundo*, esteemeth this *Ens*, sempiternall, unmeasurable, incorporeall, and individuall, not resting in this habitable world, but above it, in a sublime one, unchangeable, not subject unto any passion or affection; who as hee hath of himselfe a most blessed and perfect life, so without errour may it be said of him, that he giveth life unto all other things below; and it is to be observed, that as in his writings hee acknowledged this God, so in his dying-houre, he made his writings and words jumpe together. Which is so much the rather to be remarked: because, whereas many Christians did professe a sort of religion in their life-time, which on their death-beds they did disclaime: yet this man as he acknowledged God in his writings; so dying, he recommended his soule unto him in these words, *Ens entium, miserere mei.*

And particularly in his Booke of the Heavens, the 9. cap. as is cleere; there (saith he) without the outmost heavens there is no place, vacuity, or end: because, those that are there, are not apt or meet to bee in place; neither yet maketh time them any older, nor are they subject to change, or alteration, being ex-

R

empted

exempted from all passion, affection or change: they leade a most blessed and eternall life.

And in the 12. of his *Metaphysicks*, cap. 7. but more especially, cap. 10. *De unitate primi motoris*. In God (saith he) is age and life eternall, and continually, which is God himselfe.



Section 3.

Platos opinion concerning the Creation of the world; seconded by Socrates and Antisthenes: Opinions of Plato, Aristotle, and other Philosophers, confirming God onely to be the Creator of all things.

AS the Philosophers doe agree with us herein, and in sundry other places about the nature of God, so doe they likewise; that this God made the world, and all that is in it, governeth it, and sustaineth it. And first *Plato* in *Timao*: if, saith he, this world be created and begotten; it must necessarily be, by some preceding cause, which cause must be eternall, and begotten of none other.

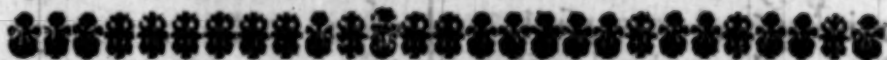
Now what this cause is, in his *Epimenides* thus he expresseth, I (saith he there) maintaine God to be the cause of all things, neither can it be other wayes. And in that dispute which is betwixt *Socrates* and his friend *Crito*: let us not be solicitous what the people esteeme of us, but what hee thinketh who knoweth equity from iniquity, who is above, and the only verity, who cannot be knowne, nor pourtrayed by any image or representation (saith he) because no eye hath,

hath, or can see him : who whilest hee moveth all things, yet abideth unmoveable, who is knowne to be mighty and powerfull, and who is onely knowne by his workes to be the Creator of this world : as *Socrates*, so his disciple *Antisthenes* acknowledged this: yea, *Plato* in *Epimenide*, maintaineth these Gods to know all things, to heare and see them : then, that nothing escapeth their knowledge, whatsoever mortall things they be that live or breathe. And *Aristotle* in his booke *De mundo*, proveth, that all things which it comprehendeth, are conserved by God ; that he is the perfecter of all things that are here on earth; not wearied (saith hee) like man, but by his endlesse vertue indefatigable.

His opinion
of God.

By all which, we may discern, that hee acknowledgeth, (I may say religiously) this visible world, and all things therein to be created of God, as in the 2 Book and 10. chap. of his Worke of generation and corruption, at large appeareth. To which authorities we may adde these of *Galenus*, lib. 2. *De fœtu formando*; and of *Plato*, *Deum opificem & rectorem nostri esse*: and that of *Aristotle*, *Deum cum genitorem, tum conservatorem nostri esse, quorum principium, medium & finem continet*. Of *Theophrast*, *Divinum quiddam omnium principium, cujus beneficio sint & permaneant universa*. Of *Theodoret*, *Deus ut Creator naturæ, sic & conservator, non enim quam fecit naviculam destituet*: but chiefly *Galen*, *Eum qui corpus nostrum finxit, quicumque is fuerit, adhuc in confirmatis particulis manere*.

Now although in these particulars they agree both with us, and amongst themselves; yet in one point, as may be seene in the subsequent section, they differ.



Sect. 4.

Opinions of Plato, Aristotle and some Hebrewes, concerning the worlds eternity. The consonancy of opinions betwixt some ancient Philosophers and Moses about the worlds creation.

Some of the
Hebrews of
the same mind.

Aristotle would conclude the eternity of the world, saying, that as it had being from before all beginning, so that it should never have an end; to which opinions some of the *Hebrewes* (particularly *Leo the Thesbite*) seeme to assent so far, (howbeit they speake not of the ever durancie of it) that after six thousand yeeres expired, they understand it shall rest one thousand; which then ended, it shall begin of new againe, and last other seven. And so by course last, and rest, till the revolution of that great jubile of seven times seven be out runne. At which time, then this elementary world, and nature the mother of all things shall cease. To which opinion some way *Ori-gen* in his worke *περί ἀρχαῶν*, *Quod mundus cum tempore cæperit*, did incline.

Yet for all this, I say, *Plato* in his *Timæo*, speaking of the procreation of the world, and of the vertues of the heavens, proved that the world had a beginning, and consequently that it shall have an end. And that this is true (saith he,) it is aspectable, and may bee seene, it may be handled, it hath a body: whence followeth, that it hath beene begotten, and seeing it
is

is begotten, it must bee by some preceding cause: Now, saith hee, as it is a great worke to search out this causer of it, so by our enquiry having found him, to divulge him unto the vulgar is not altogether convenient. Further he saith, that God willing to beautifie this world, as his chiefe worke, made it a living creature subject to our sight; containing within the inclosure of it, all other living creatures, according unto their severall species and kindes; whereas he approacheth neerer the minde and sense of our profession, than his fellow *Aristotle*: so directly in his *Timæo* he maintaineth, that as God created or begat the world, so he infused in it a procreative power; which by divine or heavenly heate, induced from above, might propagate and procreate every thing according unto the owne kinde of it, whether living or vegetable, whether above or below. And as the great Prophet, and servant of God, *Moses*, bringeth in God speaking unto his creatures after their creation was finished, *Increase and multiply, &c.* So *Plato* in his *Timæo*, bringeth in God speaking of the world, and all contained therein, in these words; All ye who are created by mee, give care to what I am to say, I will give you seed and a beginning of being; wherefore, doe ye for your parts beget, and bring to light living creatures after your kinds: augment and nourish them with food, and when they shall cease to be, let the earth receive them back againe from whence they came. And to this *Aristotle* in his 2 Book *De generatione & corruptione*, cap. 10. giveth way where preferring in that place generation unto corruption, hee saith, that it is more worthy to be, then not to be;

Platos opinion of propagation and continuance of all things.

Platos termes not far different from Moses words.

seeing properly to be appertaineth onely unto God, and not unto creatures.

After the fabrick of the universe was accomplished, it should have beene for no purpose, if creatures had beene wanting in it: therefore lest God should seeme to have forgot it, he infused in every one, according unto their owne kind, a procreative power, by which the generation of things might be perpetuated.

But how did he this? saith hee, First generally, having spread abroad in the Heavens, and Starres his divine seed (for they claime a part in our generation) Then particularly, in every thing the owne proper seed of it: all which he avoucheth in the 12. Booke of his Metaphysicks, cap. 7.



Section 5.

Ancient Philosophers attributed the framing and continuance of all sublunary Creatures (as we Christians doe) unto God; with a recapitulation of severall consonancies betwixt us and them.

IN w^{ch} places and severall others of their workes, as these worthy men have ascribed the cause of the being of all things unto God; contrary to the opinion of these other frivolous preceding Philosophers; who imputed the cause of it unto the concurrence of Atomes: So ascribe they the government of all these sublunary things unto the powers above, with

us Christians : and not unto chance or fortune, as these former Philosophers did.

Thus *Aristotle* in the first of his *Meteorologicks*; It is necessary, saith he, that this whole world which environeth the earth, should be continuated with the superior conversions, or revolutions of those celestiall circles, and bodies, which roll, and wheele above : because the whole vertue of it dependeth from thence. Neither is it probable, that he, who hath created the world, and all that is within it, should abandon and leave it so : but that as the frame of the fabricke was his, so likewise the guiding and ruling of it should be ascribed unto him also.

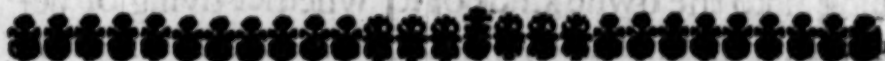
Which is more cleerely exprest by the said *Aristotle*, in his booke *De mundo*. Where he saith that it is an old saying, and left by tradition from our forefathers ; that all things both are of God, and likewise sustained by him ; and that there is no nature of it selfe, left unto it's owne Tutorie able to attaine well being (for so I interpret *Salutem*) without his assistance or helpe : wherefore his opinion is, that God holdeth the beginning, middle, and end of all things. So *Theophrast* saith, that all things have a divine beginning, by which they are and doe subsist.

Dionysius likewise in his booke *De divinis nominibus* avoucheth, that nothing hath substance, but by the omnipotent power of God : with whom, *Theodoret*, that the governour of nature is the Creator of it : neither will he forgoe that Ship which hee hath built : Hence *G o d* is said by the ancients to bee divided through all natures, as if all were full of God ; because his divine power spreadeth it selfe over, and is

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seene in all his workes, how be it one way in the heavens, another way againe in the inferiour creatures; for in them also his power manifesteth it selfe.

*Inde hominum pecudumq; genus, vitæq; volantum,
Et qua marmoreo fert monstra sub aquore pontus,
Igneus est illis vigor & cælestis origo
Seminibus----*



Section 6.

Severall other opinions wherein the Ancient Heathnicks agreed with us Christians; Confirmed by the Testimonies of their Poets.

Comparison
of the old Ro-
man Philoso-
phers with the
Roman
Church now.

GOD then as he created all things, maintaineth and governeth them, both according to these Philosophers opinions, and ours; so they jumpe with us in this, that, to procure his greater favour and to shun his greater curse, we should adore, invoke, and sacrifice unto him not only the calves of our lippes, but reall sacrifices, as in those dayes under the law was done by *Aaron* and his successors under the Old Testament; and as they who were appointed to attend upon the Altar were sequestered from amongst the rest of the people, so was it amongst them.

The Poets are full of the testimony of both these.

Now as particularly Processions were used for the good successe of their cornes, (as yet in the Roman Church

Church is observed) so had they particular dayes, which they esteemed more sacred then others. Tibullus in the first Elegie of his second booke perfectly particularizeth it.

Dii Patrii, purgamus agros, purgamus agrestes,

Vos mala de nostris pellite limitibus.

Nec seges eludas messem, &c.

Vina diem celebrent: non festâ luce madere

Est rubor, errantes & male ferre pedes.

And as yet in the said Church there is invocation of certaine Saints, for such or such diseases, and for raine, whose reliëts in such processions they carry about; so the same Poet in the same Elegie acknowledgeth some Gods to be appropriated (as I may say) to this, or that use and place.

Huc ades aspiraue mihi, dum carmine nostro

Redditur agricolis gratia Cælitibus

Ruracano, rurisque Deos.

Lastly as in the new Roman profession there is almost in every family the Statue of some Saint, so finde I amongst the ancient to have beene the like.

Sed patrii servate lares; aluistis iidem,

cursum vestros cum tener ante pedes.

Nec pudeat prisco vos esse è stirpite factos;

Sic veteris sedes incoluistis avi.

Tunc melius tenuere fidem: cum paupere cultu

Stabat in exigua lignum ade Deus.

That they acknowledged nothing to happen unto men by chance, but by the dispensation of the supreme powers, In that also they agreed with us.

Finally, I may say that as these Philosophers acknowledged punishments for sins to be inflicted upon

men

men both in their life, and after their death, so had they confidence of joyes to be reaped in the world to come for their good deeds, as *Socrates* in his *Apologie* for himselfe at length declareth.



Sect. 7.

Of good and bad Spirits : and wherein the opinions of the Heathnicks agree with ours concerning good Spirits.

AS for their opinion concerning good, or bad spirits ; I reade *Plato* and *Aristotle* come so neere ours, that you would beleeve, that they had collected their sayings out of the holy Scriptures yet they doe startle my beliefe, when they say that the continuall rolling of the celestially orbes and their spirits doe make that harmony they speak of in the heavens ; I could much easier have trusted them if they had spoken any thing of Musicke within the heavens by those spirits, where wee have warrant indeed, that the blessed Spirits there, assisting the presence of him that sitteth upon the Throne, doe sing *Allelujas*, glory to God on high. Which good Spirits, as I finde them distributed in 9. severall Quires or orders by *Dionysius*, so in *Plato* finde I 9. distinct orders of good daemons.

Yea the story of the evill spirits is no cleerer set downe by our owne Writers, then they have it expressed in theirs.

The blessed spirits as I was saying, are divided by
Dionysius

Dionysius in these Quires, Seraphins, Cherubins, Thrones, Dominations, Vertues, Powers, Principalities, Arch-angels, and Angels; subdivided in two ranks. The Hierarchie of blessed Spirits.

The first of them assisting the presence of the Almighty.

The second is called inferior, because as it obeyeth the commandment of the first (as *Dionysius* in the tenth Chap. of his booke touching the heavenly hierarchie witnesseth :) so their imployment is much in the world: as the Lord his servants executing his wil, appointed either for whole countries, or particular persons.

*Apparent accincti auræ flammeque ministri,
ut jussu accipiant.*



Sect. 8.

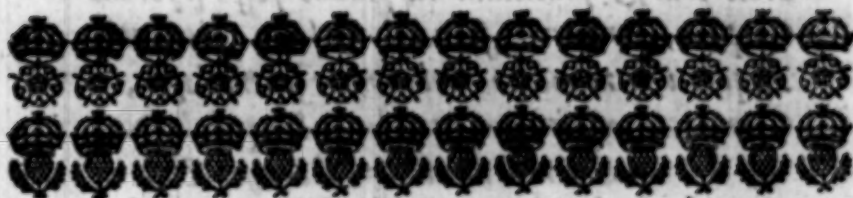
How neere the Ancients agree with us concerning bad spirits; and in what orders they were divided of old.

AS for the bad spirits who were banished heaven, (the first and best mansion) for their pride, they invaded the principality of this world, and so bewitched it by their craft, that there was no nation almost that they did not draw to their obedience under the name of God, and that so strangely, that every where after a like manner, they were worshipped and adored as Gods, both amongst the French Druides, and the remotest Gymnosophists of the

the Indies, in shapes of Idols : howsoever since the coming of our Lord and Saviour Iesus Christ, both they and the old Sybillas have ceased for a great part, although, yet in many places their sacrifices doe continue. And that same *Lucifer* goeth about yet as a roaring Lion seeking whom he may devour.

So *Plato* by severall arguments proveth not onely that they are, but setteth down their division and power over the world; both generally and particularly. But leaving all, both *Deos majorum*, and *minorum gentium*, The gods, as they termed them, of greater, or lesser Nations; their Gods *Patrii* and *Penates*, ordained for the custodie of provinces, or families; their *Dii Lares*, which were propitious ones, or *Larvae* the badder sort, with their *Genii*, good or bad Angels, ordained as they thought for the garde and attendance of every particular person and so forth, I conclude this Treatise.

Or



OF SLEEPE AND DREAMES.

Section 1.

That nothing can subsist without sleepe or rest; Exemplified in the death of Perseus King of Macedon: The Primary and secondary causes of sleepe: That a sound conscience is a great motive to sound sleepe; Proved in the example of Thirois and his two Sonnes.



ALL motion tendeth to, and endeth in rest, except that of the Heavens; Which, in a perennall rotation wheeleth ever about! Wherefore men, beasts, Fowle, Fishes, after the dayes travell doe cover, and betake themselves to rest, as it is in the Poet.

Sleepe, maintainer of all living creatures

Nox

*Nox erat, & placidum carpebant fessa soporem
Corpora, per terras, sylvaq; & saeva quierunt
Æquora, cum medio volvuntur sidera lapsu,
Cum tacet omnis ager, pecudes, piæq; volucres.
---Et corda oblita laborum, &c.*

Captabant placidi tranquilla oblivia somni.

*Perseus dyed
for want of
sleepe.*

This sleepe is so necessary to the life of man, that for want of it many have dyed, as *Perseus King of Macedon*, who being prisoner in Rome, and for torture being kept from sleepe, there dyed.

Causes of sleep

Causes of sleep are two fold; Primary and secondary: The true, Primary, Philosophicall, and immediate cause of sleepe may be said to be this; the heart, the fountaine and seat of life, having much adoe to furnish every part of the body with the streames of vitall spirits, hath most adoe to furnish the braines, which are the greatest masters of them, in regard of the many and ample employments it hath for them, as for Pensing, Projecting, consulting, reasoning, hearing, seeing and so forth; which functions of the braine doe so exhaust the animall spirits, sent up thither *per venas carotides*, through the *veines organs*; after by circulation in that admirable *Rete*, or net of the braine, they are there settled, that of all necessity either our life in the heart behooveth to cease, or it must betake it selfe to rest againe, for the recollection and drawing backe of her spent vitall spirits, to refurnish the braines with a new *recrew* of them.

Secondary.

Secondary causes of sleepe are divers; as excessive labour, agitation of the body, repletion, as by excesse of meates or drinckes, inanition, as by Copulation and many

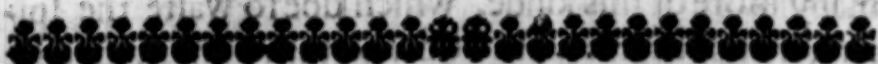
many more of this kinde, which doe so waste the spirits, that of necessity, there behooveth a cessation to be for a time, that new spirits may be recollected for refreshing of it; *Anfonius* wittily chiding his servants lasie drowsinesse, imputes it to excesse of meate and drinke.

*Dormiunt glires hiemem Parenem,
At cibo parcut; tibi causa, somni est
Multa quod potes, nimiaq; tendas
--- Mole saginam.*

Adde to these causes the tranquillity of a sound Conscience; Whereupon it was, that the two Sons of *Thirois* (mentioned by *Quintilian*) upon most reasonable judgement, were quitted from the murther of their Father, who was found in that same Chamber with them alone, and they both in a sound sleepe, the murtherer perchance having fled away: for it was reasoned, no men, guilty of so heynous a crime, as *Patricide*, could sleepe so soundly, as they were found to doe, by the discoverers of their murdered Father. But leaving examples of this or the former causes whereof every where are plenty, I proceed.

*Thirois mur-
ther.*

Section.



Section 2.

Examples of Kings and great Commanders, that upon the thoughtfulnessse of some great exploit or encounter, have beene extraordinarily surprized with unusuall sleepe; and the reasons thereof agitated.

*Alexander the
great his sleep.*

VVE reade that great men and Commanders upon the most important poynt of their employtes and affaires, have sometime fallen in so deepe sleepes, that their servants and followers have had much adoe to get them to awake, the like formerly being never perceaved in them. *Iustinus* and *Quintus Curtius* in the life of *Alexander* the great relate of him: That, in the morning of that day appoynted for that memorable battell betwixt him and *Darius*, he fell in so deepe a sleepe, and slept so long, that, on the very shock of the battell, very hardly could his favorite *Parmenio*, after two or three tryalls get him to awake. It is agreed upon that hotter constitutions are least subject to sleepe, and all his actions and proceedings marke him out to be such an one; so it could not be his constitution that brought that sleepinessse on him; but he being then in hazard either to loose or conquer a field, whereby both his Crowne, Countrey, and reputation lay at the stake (motives to keep a man awake) had so, no question, toyled his minde and body in the right preparing and ordering of all things besitting a man of his place, for the encounter; that being at a resolution

resolution, he gave himselfe to sleepe, which his former thoughtfulness and paines did augment upon him; and not, as some would have it, the terror of his enemies forces: as *Marcus Anthonius* objected to *Augustus* in that Navall combat against *Pompey* in Sicilie, that he had not courage enough to behold the order of the battell; for indeed he fell asleepe and slept so long till the Victory was his, which he knew not of till *Agrippa* with much ado had awaked him.

Augustus his.

But indeed I construe both their courages rather to have beene so great (as their former and succeeding actions may witnesse) that they disdayned that the apprehension of such hazards or accidents as might ensue so great encounters, should any way startle them from giving way to their owne inclinations, whether to sleepe or wake, or doe or not doe this or that.



Section 3.

Alexander the great his sound sleeping, when hee should have encountred Darius in battell, heere excused. Catoes sleeping before his death, whereupon is inferred a discourse against selfe-Murder.

BUt laying all these excuses aside; I cannot much marvell at this sleeping of *Alexander*, he being so young in the flower of his age, and so more
S subject

Alexanders
great fortune.

Catoes sleepe.

His death.

A digression
against selfe
murder.

subject to sleepe ; besides being so puffed up with the fortunate successes of his affaires, which made him have so high a conceit of himselfe, (as to whom (sayth one) fortune gave up townes captive, and to whose pillow, whilst he slept, victories were brought ;) as I must admire that strange sleepe of *Cato* ; who, after *Cæsars* Conquest of the field at *Pharsalia*, despairing of the liberty of his enslaved Countrey, resolved to kill himselfe rather then behold the ensuing alteration which *Cæsars* government would bring with it ; He then (I say) having put all his domestick affaires in order, expecting newes of the departure of his Colleagues from the Port of *Vtica*, fell in so sound a sleepe, that his servants in the next roome, overheard him to snort extreemly ; yet after that sleepe, which (as it should seeme) would have opened the eyes of any mans reason and understanding, so farre as not onely to abhorre his first so ill-sett resolution, but totally to extirpate a future thought of so damned an intention: he awaked so strongly confirmed in his former intent, that forthwith he stabbed himselfe : And sleepe is sayd to mollifie and mitigate fury or rage in any mans minde, *Prater Catonis invictum animum.*

Now, though this man, (whom, his many other excellent vertues had made famous) and many other worthy men amongst the ancients, did imagine for the like deathes to be highly commended for courage; yet *Saint Augustine* (and with him every good Christian) reputeth it rather to be an infallible marke of Pusillanimity, and want of firme and constant resolution, to behold and withstand dangers, and inciteth us rather
to

to awaite death, which is the worst that can befall us; then, to prevent the sufferance of triviall crosses by unnaturally Boutchering our selves: To which purpose *Cicero*, in presence of this same *Cato*, saith: That since, we are placed here by our generall the G O D Almighty, as Souldiers in a garrison; that it behooveth us not basely to forgoe our station, till it be his good pleasure to call us off: So much for sleepe, now to dreames which are the companlons of sleepe.

In his booke
de Senectute.



Section 4.

Of Dreames, both Naturall, Accidentall, Divine and Diabolicall: Apollodorus dreame; Abrahams, Iosephs, Pharaohs, Nebuchadnezzars, &c.

MAny more things might have beene brought in, in the former Sections, as of those that walke or talke in their sleepe, with the reasons thereof, and illustrations to that purpose; but so many having handled those theames, and I studying so much as I can brevity, and to shun tautologies, I remit the Reader to them; and will now by the way touch upon dreames: And they are either Naturall, Accidentall, Divine or Diabolicall.

Division of
dreames.

Naturall are caused either by the Predominant matter, humor or affections in us: As the Cholericke, who

dreameth

Natural which

dreameth of fire, debates, skirmishes and the like;
The Sanguine, of love-sports and all joviall things;
The Melancholicke on death, dangers, solitudes, &c.
where the flegmaticke dreameth of Waters, Seas,
drowning and the rest.

These dreames which proceed from our Naturall
or predominant affections are either of love, jealousy,
feare, avarice, envy, &c. by the first we may Presage
and judge of the sickenneses which may ensue upon the
superabundance of such and such humors; (because
they being the effects of the redundancy of these hu-
mors, have a connexion in Nature with them, as all
other effects have in their causes.) By the latter dreams
we may presage, and judge of the affections, and
passions of the mind, and so consequently of the vices,
consisting in their extreames; So the avaricious dream-
eth of gold; the lover of his Mistris, the Jealous of his
corrivall, &c. and if not ever, yet for the most part,
this happeneth true or at least in part.

Accidentall.

Accidentall dreames, are caused either by dyet, by
feare or joy conceived in the day time; or the pro-
pense desire to have such or such a thing to come to
passe, and the like: Thus oft times a vicious soule will
figure to it selfe in dreames the terrors that it feareth:
As *Apollodorus*, who dreaming that the Scythians were
fleaing off his skinne, thought that his owne heart mur-
mured this unto him: Wretched man that thou art!
I am the occasion of all these thy evils which thou en-
durest.

Divine.

Divine dreames are those, whereby it pleaseth God
to give either a warning or insight of things to come;
such

such the Lord sent on Abraham the fifteenth of *Genesis*; and on Ioseph in the first of Saint *Mathew*; that too of *Pharaoh*, *Genesis* forty one: Of *Pharaohs* Butler, and Baker, *Genesis* forty: of *Nebuchadnezzar*, &c.

Diabolicall dreames cannot fore-shew any thing unto any man; they may give a shaddow or representation of things past unto us, but not otherwise: Then seeing there is little connexion of things past and to come, therefore can there be no foresight by them; for although the Divell knoweth many things, and at some times even speaketh the truth of things to come, thereby to inveigle our credulity, when in effect he only lyeth to deceave us; yet unto them we ought to give no regard or faith. Now how Naturall or accidentall dreames can portend or foreshew future things, it is doubted: indeed *Cardan* setteth downe the *how*, but not the *why*, any wayes cleerely enough, to my understanding.

Diabolicall.

For the dreames that *God* sendeth upon a man, I understand to be mysticall, and portending something touching his service: Our spirits it cannot well bee; for when we are awake, we cannot foreshew any thing to come, at least without praemeditation, no not by any Philosophicall ground whatsoever. Neither can they be moved by the divel, for he is a deceaver, and all his workes impostures: It must be then some other spirit, that infuseth these accidentall dreames whereof we will instance examples heereafter; to my mind, it must be rather some peculiar extraordinary inspiration in the dreamer for the time, than *Anima Mundi*,

or

or *spiritus universitatis*, although many learned men ascribe such dreames to it particularly.

*Severus dream
of Pertinax.*

An example of this kind I read in *Herodian*, where it is reported, that the Emperor *Severus* dreamed he saw *Pertinax* mounted upon his richly Caparassoned Horse, and received as Emperor by the Pretorian Souldiers, but that the Horse straight wayes flung *Pertinax* off his backe, and came stooping to *Severus*; who reaching the Horse by the mayne forthwith mounted him, and was by the same Souldiers received and admitted Emperor; which indeed came so to passe.

Section 5.

The Emperor Severus his dreame of Pertinax; which he caused to be molded in Brasse; An admirable dreame of the Emperor Henry the fifth; Cicero's of Octavianus. That beasts dreame, but hard labouring men seldome; and the reason thereof, &c.

Severus caused to be cast the manner of his dreame in brasse.

WHereon hee caused the whole drift as it happened, to be cast in brasse, of which at length in *Sabellius Aeneid. 7. lib. 5.*

Henry the 5th. his admirable dreame.

To which I may subjoyne that dreame of the Emperor *Henry* the fifth, who being grievously pained with the stone, dreamt that Saint *Barnabas* had cut him and gave him the stone in his hand; which when he awaked, to his great Ioy he found to be true, if we may beleeve *Cuspinian*.

Likewise that Dreame of *Cicero* may bee ranked amongst these: He dreamt that there appeared a Boy before

before him who once should be Emperor and Master over Rome; the next day, after his accustomed manner passing through the publicke market place, and espying *Octavianus Augustus* a little boy playing the part of a Commander over the rest of his companions, he called to minde the feature and stature of the boy who the night before had appeared to him in his sleepe, and finding that in every lineament he assimilated *Octavianus*, took him by the hand & brought him before all the people that were there assembled, presented him, and told them that one day that boy should command over them, which thereafter came to passe.

*Cicero's dream
of Octavianus.*

Now dreaming is not proper to men only when they sleep, but to beasts also; for War Horses accustomed to allarmes, and skirmishes, are observed to start as afrighted, and sometime to neigh; Spaniels, Hounds and other hunting Doggs are knowne with their voyces to hunt in their sleepe.

-----*Iam Iamq; teneri*

Credit, & extento stringit vestigia Rostro.

But sleeping men doe not at all times dreame, wearied and labour-toyled bodyes doe never finde them.

Dulce Sopor fessis in gramine.

Againe,

Sopor virorum dulcis agrestium.

Because nature hath enough to doe to disburden and digest the drowfinesse, wherewith their whole senses were clogged.

But I will adde no more of dreames, then that which *Cato* long agoe hath warned us of,

Somnia ne cures, nam mens humana quod optat

Et

Et sperat vigilans, in somnis vidit id ipsum.

That this is love, beside dayly experience we have warrants out of our most famous Poets.

In somnis eadem plerofq. videmus obire,

Considicos causas agere, & componere lites,

Induperatores pugnare & praelia obire.

The reason hereof being that the object of our senses do not only move them while they are present at a businesse, but also leaveth some certaine Idea imprinted in the minde; which rancounting with our drowisie phantasies amidst our sleepes, produceth these confuted dreames above spoken of.

FINIS.

OF
VARIETIES,
The fifth Booke.

Conteining five Treatises.

- 1 *Of the Numbers Three and Seven.*
- 2 *Of Miracles and Prodigies.*
- 3 *Of the Philosophers Stone.*
- 4 *Of the World.*
- 5 *An Introduction to the Metaphysicks.*

By DAVID PIERSON OF LOUGHLANDS in
SCOTLAND Gentleman.

Et quæ non prosunt singula, multa juvent.



LONDON printed for T. A. 1635.

THE FIFTH BOOK OF THE

OF THE

VARIETIES

The fifth Book.

Containing the

1. Of the Numbers Three and Seven

2. Of the Numbers Four and Eight

3. Of the Numbers Nine and Sixteen

4. Of the Numbers Twenty and Forty

5. Of the Numbers Fifty and Hundred

6. Of the Numbers One Hundred and Twenty

7. Of the Numbers One Hundred and Forty

8. Of the Numbers One Hundred and Sixty

9. Of the Numbers One Hundred and Eighty

10. Of the Numbers Two Hundred



TO
THE RIGHT
Honourable, my noble
good Lord, THOMAS
Lord BINNING, &c.

My ever honoured good Lord,



O so base attribute but might
justly be vented against mee,
had I so farre suppress'd Your
Lo. most generous goodnes, and
many singular favours con-
ferred on my demerits, as not
in this dutifull dedication, sa-
crificed to the altar of your
larger merits, present this
small offering of my greater good will and affection: I
will not implore your propitious acceptance, for your
noted and courteous affability to all, and gracious accep-
tance of meanest gifts, animates me to this presumpti-
on. What your knowne vertues (my Lord) are, would
(Aa2) require

require a more accurate and tighter Pen than mine to delineate; yet were not the world so given, that even truthes themselves are taken for palpable flatteries, I could tell with what universall applause and commendation your younger vertues and generosities in your travels made even strangers to honour and admire you! I could tell what great hopes our Countrey hath already received, that you will not onely to the Lands and Possessions of your worthily noble Father, succeed as Heyre, but to his singular Knowledges and Vertues also; which have already so fairely budded and now ripen so hopefully, that none can doubt the successe; I could tell too of your Prudence, Courage, Charity, and your other ample endowments; but I am so full of admiration of your every goodnesse, that what the Tragedian said of Cares, I may of my affections, *Leves loquuntur, ingentes stupent*: Accept then (my deare Lord) for expresseion of all, this little Booke; which, how voluminous and accurate soever it could be, were due to your high deservings from me; That Your Lo: in it, is mixed with so noble Partners, I hope for pardon not reproofe, which likewise intreate for all my other trespasses and boldnesse with your Honour, alwayes humbly desiring the continuance of your Noble Love and Favours to one, who would no longer wish to live, if it were not both to live and die

Your Lo: most faithfull and
entirely-affectioned Servant

D. PIERSON.



OF THE
N V M B E R S
THREE and SEVEN.

SECT. I.

Treating briefly of Numbers in generall.



O n at the Creation is said to have made all things in number, weight, and measure, as indeed they were in a most exact order, symmetric and proportion.

Antiquity have remarked many things by severall Numbers, as *Pierus* in his *Hieroglyphicks* at length relateth,

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Aa 2 relateth,

Anti quity
superstitious
in the obser-
vance of
numbers.

relateth, *Pythagoras* is said to have esteemed much of the number of five, as composed of the first even and odde, numbers two and three :

Numero Deus impare gaudet.

The use of
number.

Severall men have severally treated of severall numbers, but I have here made choyce of three and seven, as finding maniest and most memorable things in all Sciences comprehended within them; which thus pack't up together, cannot but bee infinitely delightfull, and most helpfull to the memory of every Reader.



SECT. 2.

Containing variety of memorable things comprehended within the Number of three, as of Heaven, and Hell, and of Poeticall fictions, and some observations amongst the Romans.

THree of all Numbers should be held in greatest veneration.

The Persons of the God-head are three, Father, Sonne, and Holy Ghost, which is that most blessed Trinity.

Three Hea-
vens.

There are said to bee three Heavens; Aëriall, which is betwixt this and the starry Firmament: Etheriall, that great *Primum Mobile* encompassing the first: and Empireall, or Cristalline Heaven,

ven, the habitation of the blessed Spirits, whicher (as is supposed) Saint *Paul* was ravished. There are also three Regions of the Ayre.

As three heavens, so there are said to bee three Hels; The Grave, the place of torment, and the anxiety of a vexed minde. Three Hels

Saturne had three Sonnes, *Pluto*, *Neptune*, *Iupiter*. *Iupiter* had his three-fold Thunder, *Neptune* his three-forked Trident, and *Pluto* his three-headed *Cerberus*.

Diana, according to the place where shee was, hath three severall names; in the Heavens, *Luna* or *Lucina*; on Earth *Diana*; in Hell *Hecate*. Heathnick
superstitions.

There were also three Graces, *Aglaia*, *Thalia*, *Euphrosine*: and the *Muses* are numbred by thrice three.

Three Iudges are fained by Poets to be in Hell; *Minos*, *Æacus*, and *Radamanthus*.

Three Furies Daughters of *Acheron*; *Alecto*, *Typhoea*, *Megeira*.

Three *Hesperides*; *Eagle*, *Arethusa*, *Hesperethusa*.

Three Syrens; *Parthenope* for wit; *Ligia* for vertue; and *Leucosia* for beauty:

*Aspectu verbis, animi candore trahuntur
Parthenopes, Ligia, Leucosiaque, viri.*

Poeticall
fictions.

Three Sisters of the Destinies called *Partea*; *Clotho* draweth out the thread of our lives; *Lachesis*, spinneth or twisteth it; and *Atropos* cutteth it at our deaths:

Clotho Colum bajulat, Lachesis net, Atropos occat.

Gerion was said to have had a three-fold body: Three shaped *Chymara*; *Sphinx* was fained to have three severall Visages; and three fatidick or prophecying *Sybeles*, & many the like amongst Poets:

Martia Roma triplex, Equitatu, Plebe, Senatu.

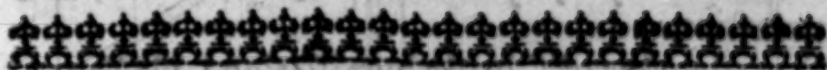
Amongst the *Romans* were three kindes of *Flamens* or *Priests*, their *Deales*, *Martiales*, and *Quirinales*.

They had also three kindes of *Prophets*; *Aruspices*, who divined by sacrifices on *Altars*; *Augures* by the chirping of *Birds*; and *Auspices*, who foretold the events of things by beholding the entrails of birds.

They divided every of the twelve moneths in three; *Ides*, *Nones*, and *Calends*.

The *Romans* also, for recovery of the *Greeke Lawes*, sent three men, *Spurius Posthumius*, *Servius Sulpitius*, and *Aulus Manlius*: And amongst them three were noted for obtaining greatest spoyles from their *Enemies*, *Romulus*, *Coriolanus*, and *M. Marcellus*.

Romes three-fold government was first by *Kings*, then *Consuls*, lastly *Emperours*.



SECT. 3.

Containing some Theologicall and Morall precepts and observations, redacted under the number of three.

THere are three Theologicall vertues; Faith, Hope, and Charity; and three principall Morall vertues; Temperance, Iustice, and Fortitude.

Theologicall
and Morall
Vertues.

Three things incident to man; To fall in sinne, which is humane; to rise out of it againe, which is Angelicall; and to lye in sinne, which is Diabolicall.

Of Sinne.

Three things in all our actions are to be observed; that our appetite bee ruled by reason; that neither lesser nor greater care bee taken about any thing then the cause requireth; and that things, belonging to liberality and honour, be moderated.

How our ap-
petites are
bridled.

There are three principall duties belonging to every Christian in this life; to live in piety and devotion towards God; Charity towards our Neighbours, and Sobriety towards our selves.

Christian du-
ties.

There are also three subalterne, and lesse principall; to use respect to our superiours, clemencie to our inferiour; and gravity to our equalls.

Wee offend God three wayes; with mouth, heart, and hands, (by hand heere I understand all our senses;) for which to him wee ought to make amends

How wee of-
fend God, and
how to ap-
pease him.

three

three other wayes, by Confession, Contrition, and Satisfaction.

Christs humiliation and exaltation.

Three degrees of Christs humiliation; his Incarnation, life, and death: three of his exaltation; his Resurrection, ascension, and sitting at the right hand of the Father.

How to know God.

There are three things incident to unregenerate Nature; Ambition, Avarice, and Luxury.

There are three wayes to know God: Negative-ly, whereby what evill is in man, is denied to be in God: then by way of excellencie, whereby, what good is in man we acknowledge to be in God most eminently above man, and in the abstract of it: Lastly by way of causality, whereby we acknowledge God to bee the efficient cause of all things.

Gods word was written by Prophets, Evangelists, and Apostles.

David.

David for numbring his people had choyce of three things, Plague, Sword, and Famine.

Salomon.

Salomon had choyce of three blessings; Wisdome, Wealth, and length of dayes.

Mans Enemies.

Three great enemies continually assaile man: the Devill without him, the World about him, and the Flesh within him: Against which hee should be armed with these three weapons; Fasting, Praying, and Almes giving.

Love.

Love three-fold; Divine, Worldly, and Diabolicall. Moreover we are tyed to a three-fold Love; Of God, our neighbour, and our selves.

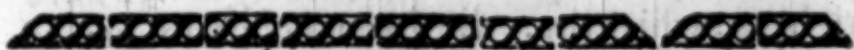
Of Feare.

A three-fold feare also possesseth us; a Naturall feare, for our lives and goods; a Civill, for our hon-
nour

nour and fame; and a Conscientious for our soules.

So wee are said to see with three kinde of eyes; of our bodies, reason, and faith.

The Popes Mitre is engirt with three Crownes.



SECT. 4.

Of Politick Government: Of living Creatures, and of duties belonging to men of severall professions, as Physicians, Iudges, and Lawyers, &c. with some Physicall observations, all Tripartite.

THere are three kindes of Government; Monarchy, of Kings; Aristocracie, of Nobility; and Democracie of Commons; as our State consisteth of Clergie, Nobility, and Commons.

Degrees of government.

Phylosophers, Physicians, and Divines doe severally prescribe dyet for living to all men; the first a moderate, the second a sparing, the third a most strict continencie.

About dyet.

There were principally three kinde of Creatures ordained for the use of man, living in three severall Elements, Fowle in the Ayre, Beasts on the Earth, and Fish in the Sea.

What Creatures God ordained for mans use.

Three kinde of living things, Intellectuall, Sensitive, and Vegetable; as Men, Beasts, and Plants.

There are three Principles of Physick; Matter, Forme, Privation.

There are also three things requisite in a Physi-

Physicians.

cian ; to restore health lost, to strengthen it being weake, and to preserve it when it is recovered.

Lawyers.

Even so the Lawyers parts are three-fold; to recover meanes lost, to preserve them when they are purchased, and to purchase such onely as wee have right to; which three the Canonists performe, in purchasing of Benefites, recovering those which are lost, and in conserving those which are once obtained.

Judges.

A Iudge should have these three qualities; not to be delaying, mercenary, nor ignorant.

Division of Lawes.

Lawes of men are three-fold; of Nature, of Nations, and of Cities; and the Lawes of God are, Morall, Ceremoniall, and Iudiciall.

Three things chiefly are to bee observed in Iudgement, Examination, Consultation, and Sentence.

Chirurgian.

Three things too are requisite in a good Chirurgian; an Eagles eye, a Lyons heart, and a Ladies hand.

Oratour.

Three things required in an Oratour; to speake fitly, ornately, and copiously; or as some will have it, demonstratively, deliberatively, and judicially: and in every of these, the Circumstances are to bee observed, Time, Place, and Persons.

Civilian.

There are three objects of the whole Civill Law, Things, Persons, Actions.

Poets.

Amongst Latine Poets, three kindes of Verses are chiefly used; Heroick, Elegiack, and Lyrick; under Lyrick are comprehended Saphick, Iambick, and the rest.

Three

Three species of sicknesse wherewith we are affected ; which are of quality, humour, and substance ; which againe resolve in three kinde of feavers, Simple, Corrupt, and Pestilentious : Simple feavers too are three-fold, Quotidian, Tertian, Quartan : Corrupt or Hectick Feavers three-fold ; the first being in the consumption of our ordinary humour ; the second in our Balmie or oyly substance, both curable ; the third which consumeth our noble parts called *Marasmus*, past cure.

Physicall
observations.

Of all measurable bodies there are three dimensions ; length, breadth, and deepnesse.

Three things especially the *Persians* taught their children ; to ride, shoote, and speake truth.

Customes amongst the
Persians.

The day is divided into Morning, Noone, and Evening.

Every Moone hath her increase, full, and wane,
and *Post triduum mulier fastidit & hospes & imber.*



SECT. 5.

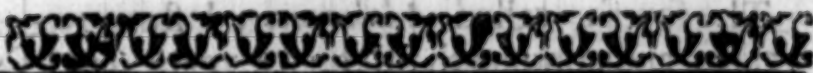
Memorable observations comprehended within the Number of Seven, as of the age of the World, and mans generation.

THe Number of Seven by many learned men hath beene held the most mysticall, and by some entituled the most sacred of Numbers, as on it many most remarkeable matters have hap-

pened : God created the world in six dayes, and rested the seventh ; and therefore amongst the *Jewes* every seventh moneth, and seventh yeare were appointed to rest : and in how great reverence was their great Iubilee, which every seventh yeare being multiplied by seven, fell out every 49 yeares.

The age of the world is divided into seven ; the first from *Adam* to *Noahs* flood ; the second from that to *Abrahams* time ; the third from *Abraham* to the freeing of the people of *Israel* from their Captivity in *Egypt* ; the fourth, from their comming out of *Egypt* to the building of *Salomons* Temple ; the fifth, from that to the *Babylonish* Captivity, at what time *Ieremie* writ his *Lamentations* ; the sixth, was the time betwixt that and the comming of our blessed Saviour : the seventh from our Saviours time to the end of the world. And some have given forth, that the world shall take end the six thousand yeare of its age, and rest the seventh.

The first seven dayes after conception, the seed of man in the wombe becommeth Embrion, the seventh weeke there-after it becommeth *fetus* and quickneth ; and the seventh moneth after that it is *partus*, and is brought into the world.



SECT. 6.

How the seven Planets are said to rule severally over the seven ages in the life of man.

A Strologians, who will have the life and constitution of man to depend on the force of the starres and celestiall bodies, (no wayes depriving God of his Sovereigne and absolute power) have divided the age of man into seven parts, ascribing to every part one of the seven Planets which ruleth over it. The first they call Infancie, over which they place the Moone, which is of nature weake and moyst, changeable by encreases and wanes, and this they make to last but foure yeares.

The seven
ages of man
life attributed
to the seven
Planets.

1.

The second from foure to fourteene, called childhood, over which they set *Mercury*, because hee of himselfe is indifferently good or bad, according to the good or bad Planets with whom he is joyned ; so in this age a boy bewrayeth his inclination, and is so flexible, that according to his education and company he is mingled with, hee becommeth either good or bad, and that impression he then taketh, can hardly be rooted out of him.

2.

The third containeth the next eight yeares, and continueth to the twenty two ; over which they place *Venus*, *Et prima lanuginis atas in Ve-*

3.

nerem est praecept; and it was called Youthead.

4.

The fourth, called *Adolocencie*, lasteth twenty yeares, and continueth till the 42 yeare, and is governed by *Sol*, the Suane, which Astrologians call the spring, the light, the eye of the world, and King over the other Planets: In this age man attaineth to his full strength and vigour, becommeth hardy, judicious, understanding, &c.

5.

The fifth lasteth from 42 to 56, and is called manhood or virile age, ruled by *Mars*, a bad star, dangerous, fierce, and hot; for in that men begin to wax angry, impatient, and avaricious, but more temperate in their dyet, and more constant in their actions.

6.

The sixth taketh up 12 yeares, so lasts to 78, and is called old age, governed by *Jupiter*, a noble Planet, making men religious, just, chaste, temperate, and pious: In this age men abandon paines and travell, and practise devotion and good workes.

7.

The last is from 78 to 98, which yeares few come to, and is called decrepit old age, ruled by *Saturne*, the highest and most malignant Planet, cold, dry, and mellancholick; cumbersome, insupportable, weake, and growing againe childe-like.

SECT. 7.

The opinions of some Fathers of the Church and some Philosophers concerning the number of Seven, what attributes they gave, with some of Hypocrates observations thereon.

BY Saint Ambrose in his 12. chap. de *Moha & Arca*; S. Origen in his 2 Homily on *Genesis*, and his third on *Exodus*; and Eusebius de *Preparatione Evangelica*; this number is sometime called a cleane number, a holy number, a virgin number, a mysticall, a number of perfection, with many the like Epithets attributed unto it both by Civill and Ecclesiasticall Writers; yet Chrysostome in his 24 Homily on *Genesis*, speaking of the number of Beasts that entered the Arke, inveiyeth against, and taxeth all observers of numbers: Hypocrates in his worke de *partu Septimestri*, enlarging himselfe on the properties of this number, saith, that the life of man consisteth of septinaries; that in seven dayes a childe hath all his compleate members; and that if any man abstaine totally from meate and drinke seven dayes, hee cannot live; that a childe borne the seventh moneth may live, but not one borne the eight; because (saith hee) that then *Saturne*, by course over-ruleth the birth; that in seven yeare children have all their teeth; that the Guts of man are seven times his length; that the celestiall bodies
of

of the Moone, and of the eight and ninth Orbe doe move by *Septinaries*; the Moone maketh her course in foure seven dayes; the eight Spheare finisheth its revolution in seven thousand yeares; the ninth, in seven times seven thousand, which make out forty nine thousand, and many the like.



SECT. 8.

Of the seven Wonders of the world.

THere have beene seven wonders famed through the world, so called, either for the vastnesse of the fabrick, or curiosity of workmanship: 1. The Pyramides of *Egypt*. 2. The Towre of *Pharos*, built by *Ptolemy* King of *Egypt*. 3. The Walls of *Babylon*, built by *Semiramis*. 4. The Temple of *Diana* in *Ephesus*, which was beautified with 127 Pillars of *Parian* Marble. 5. The Tombe or Sepulchre of *Mansolus* King of *Caria*, built by his *Q. Artemesia*. 6. The *Colossus* at *Rhodes*, the Image of a huge Gyant cast in Brasse, which be-stridde the River which runneth to *Rhodes*, under which a ship might passe: By some the Pallace of *Cyrus* which was reported to bee cimmented with gold, obtained the seventh place, though some, as *Martiall* in his first Epigram, preferreth *Vespasians* Amphitheater at *Rome* before it, or any of the former: but the matter is not worthy a controversie. So I leave them and proceede.

SECT. 9.

Seven Wonders,

SECT. 9.

A continuation of observations on the number of seven, taken out of holy Scripture.

THe Israelites compassed the Walls of Jerico seven times; and at the seventh blast of the Rammes hornes, which they carried about them, they fell downe to the ground, and the Walls were throwne downe.

The greater part of ancient Sacrifices were by sevens, as seven Rammes, seven Bullocks, &c.

Sybilla enjoyned *Aneas* to sacrifice in sevens,

Nunc grege de intacto septem mactare juuencos

Præstatoris, totidem lectas de more videntes.

The principall Feasts and Solemnities of Gods people continued seven dayes.

Seven dayes the people ate unleavened bread at the Pascheover.

God had seven thousand reserved unto himselfe, which bowed not their knee to *Baal*.

Job had seven Sonnes; and *Zachary* maketh mention of seven eyes, wherewith God seeth all things.

The Prophet *Elisha* commanded *Naaman* the Leper to wash himselfe seven times in the River of *Jordane*.

The number of Beasts which entered the Arke of *Noah* were seven: The Arke rested on the

Mountaine of *Ararat* on the seventh moneth : and in the 19. of *Proverbs*, Wisedome hath built her house on seven Pillars; the seven Candlesticks, the seven Churches of *Asia*; the Booke closed with seven seales; the seven Angels, with their seven Trumpets; the seven viols of Gods wrath; the seven degrees of the Temple, seven loaves served the whole Companie which were with our Lord: *Pharaoh* dreamed of seven fat, and seven leane kine: and God in the 26 of *Leviticus*, threatneth a seven-fold curse to bee multiplied on all that thinke the evils that befall them to come by chance, all which with many more mentioned in Scripture, cannot be without their owne mysteries; No marvell then that *Pythagoras* and others have reputed this number a religious one; since Scriptures are full of occurrences of this number; and the world consisteth of the harmony of seven Vnities, Naturall, Conjugall, Regular, Personall, Essentiall, Ecclesiasticall, and Politicall.



SECT. 10.

Of the seven great Potentates of the world; of criticall dayes, and climacterick yeares, with other observations.

IN the Heavens are seven Planets, and in the Earth seven great and powerfull Potentates doe rule:
The

The great *Cham* of *Tartary*; the Emperour of *China*, by them called the second Sonne of God; the *Sophy* of *Persia*; the great *Turke*; the Emperour of *Germany*; *Prefter Iohn*; the powerfull Monarch of *Ethiopia*; and the Emperour of *Russia*.

The seventh and fourteenth day in all diseases are accounted most dangerous, and are called Criticall.

Macrobius, *Aulus Gellius* and others observe, that every seventh yeare in the life of man there followeth some alteration either in estate, voyce, colour, hayre, complexion, or conditions: And *Seneca*, *Septimus quisq; annus atati notam imprimit*, wherefore the 7. 14. 21. 28. 35. 42. 49. 56. and 63. the great Climactericke yeare are counted dangerous for all. *Firmian* adviseth all to take great heede to themselves in these yeares: *Octavianus Caesar* having passed this date, writ to his Nephew *Caius*, to congratulate with him, that he had yet seven yeares more to live.

There are seven Liberall Sciencēs, Grammar, Dialect, Rhetorick, Musick, Arithmetick, Geometrie, and Astronomie:

Gram. loquitur, Dia. vera docet, Rhet. verba colorat,

Mus. canit, Ar. numerat, Geo. ponderat, As. constitit astra.

Seven Roman Kings, *Romulus*, *Numa Pompilius*, *Tullus Hostilius*, *Ancus Martins*, *Tarquinius Priscus*, *Servius Tullius*, *Tarquinius Superbus*.

Rome was built upon seven Hills; *Palatinus*, *Capitolinus*, *Quiritalis*, *Calius*, *Escalinus*, *Aventinus*, and *Viminalis*.

Cca

There

There were seven wise men of Greece; Solon, Thales, Chilo, Pittacus, Cleobulus, Bias, and Periander.

There were seven kinde of Crownes amongst the Romans.

- 1 The Triumphall, first made of Lawrell, & there after of Gold, given to their Emperours by the Senate, in honour of their Triumphs.
- 2 Obsidionall, given by Souldiers to their Emperours, for delivering them from a Siege; and it was made of grasse, gathered from about the trenches of that Siege.
- 3 The Civicall Crowne, which was bestowed on any Souldier that had releevd a captived Citizen.
- 4 A Murall Crowne, which was given to any man that first entered a Towne, or had scaled the Walls of it.
- 5 Castrensis, a Crown, given to the first enterer into the Enemies Campe or Trenches.
- 6 The Navall Crowne, bestowed on him that first had boorded an Enemies Vessell.
- 7 Was called *ovalis*, or a Crowne of rejoycing, made of Myrtle, which was put on the heads of their Emperours, in *ovatione* (as they said) or in signe of rejoycing at his admittance to that dignity.

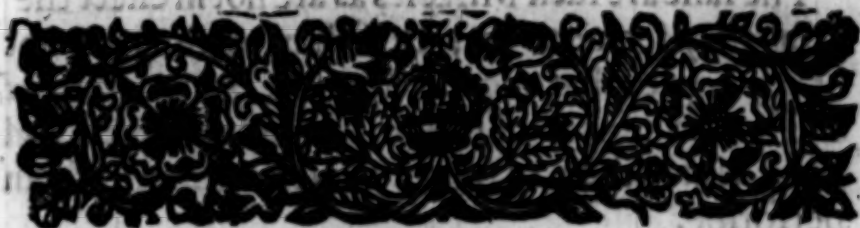
SECT. II.

Of the Worlds Continuance and Ending.

That subtle and excellent Philosopher *Zeo Hebrew*, expatiating in the meditation of this Number of seven, admiring and speaking of the worlds rest, saith; That after six thousand yeares are expired, in the seventh thousand this elementary world shall rest, which God thereafter will renew seventimes; betwixt every seven thousand giving one thousand yeares rest; after all which, saith hee, this elementary world, the Earth and all beneath the Moone, the Celestiall world also shall take an end: which *Proclus* also the Academicke secondeth, when hee saith, that the life of this world is septenary, its parts, proportion, and circles are septenary; and with them many other Philosophers have dived too deepe into these mysteries; yet I cannot passe by *Charon*, who in his History bringeth in *Elias the Jew* (not the *Thesbite*) affirming, that the world shall last but six thousand yeares: viz. two thousand before the Flood; 2000 from it to the comming of the *Messias*; and from that two thousand more to the Consummation of all things; which in all amounteth to 6000. Whereto *S. Augustine* in his first Booke on *Genesis*, ad *Manichaeos*, some way enclineth; yet *Hesychius*

ingeniously confesseth his ignorance of it, since neither to the Sonne of man (as he was man) nor to the Angels that knowledge was revealed: *Origen* adheareth to *Leo Hebraeus* opinion of 7000. yeares continuance in his Homily, *Quod Mundus cum tempore caperit*, in this third Booke *deus xlv*; and goeth further, saying, that after this world is ended, another shall begin; and that before this world, there was another which hee would strive to approve with Authorities out of holy Scripture, which doeth savour a little too much of presumption; for in all the Scripture there is no expresse mention to bee found either of the one or other: But wee are commanded, not to pry too farre in these and the like mysteries which concerne not our salvation, and which God hath kept onely to himselfe.

Mitte arcana Dei, cælumque inquirere quid sit:
Yet indeede this Father in his Homily *de fine vel consummatione*, ingeniously confesseth, that he only handled those matters by way of reasoning, than any wayes to conclude an infallibility of them; for in the end he acknowledgeth, that hee wrote them in great feare and suspensive trembling.



OF
PRODIGIES
 AND
MIRACLES:
 Which are true, which false.

SECT. I.

*The definition of Miracles, with their distinction;
 In what time they were requisite, in what not, &c.*

Saint *Augustine*, that famous and
 reverend Father of the Church in
 his 6. Booke *de utilitate credendi ad*
Honoratum, defineth Miracles, to
 bee things beyond the expectation
 and power of the beholder: Whereof there are
two kindes, True and False.

Two kindes
 of Miracles.

The

Of Miracles and Prodigies. Lib. 5.

False Mira-
cles which.

The false are such Miracles as are not in effect the thing they seeme to be; or if they be, they are not of any power that excelleth nature, but meereely of and by the power of nature, though obscured and hid; which the bad spirits as well as the good can performe.

True Mira-
cles.

True Miracles are done by the power of God, beyond all faculty of created nature, partly to draw the beholder to a due and true admiration of him in them, and partly to confirme their faith: such as these were; the bringing back of the shadow ten Degrees in the Diall of *Ahaz*, for *Ezechias*: A Virgin to conceive with childe, and yet remaine a Virgin: To draw water out of a hard Rock: To make the Sea to part in twaine; the Sunne to stand still; to turne water into wine; to cause Manna fall from heaven, and many of the like kinde comprehended in holy Scripture, which indeede were miraculous things of themselves, if we consider the nature of their doing; where, on the other side, false Miracles may, in a manner, be thought miraculous, but not so much for the nature of their doing, as for the manner how they are done; *Neque enim* (saith one) *constant miracula magnitudine operum*; so these Miracles are not so much to be measured by the greatnesse of the worke, as by the way of doing of them: and such as these bad spirits cannot bring to passe, because how wonderfull soever their miracles appeare to be, yet they doe no wayes exceede the reach of Nature: *Ita ut mirabilia quanquam sint, non proinde sint, & Miracula.*

Difference
betwixt true
and false Mi-
racles.

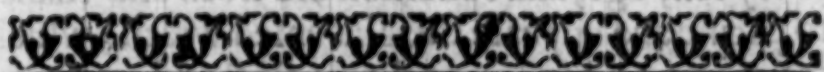
Neither

Neither is it to be denied, but that God serveth himselfe with, and permitteth the false Miracle-workers, intending thereby rather to trie the faiths of the beholders of them, than any way to allow or confirme their doings, as *Dent. cap. 13. vers. 3.* may be seene.

Why God
permitteth
false miracles.

Now, whē it is said before, that true Miracles are for the confirming, as false ones are for trying of our faiths; this must be understood to be, when the workers of them doe teach withall so sound doctrine, that his Miracles may bee judged by it, not it by them. Hereby I intend not to enforce a necessity of miracles perpetually for confirming our faith; for though, during the Churches infancie, they served some way towards the establishing and confirming of the weake and wavering faiths of the hearers; yet now they are not so requisite, seeing the Law, Prophets, Evangelists, and Apostles workes and writing are so universally preached unto all.

When mira-
cles were
most neces-
sary.



SECT. 2.

Of Prodiges, and in what veneration they were amongst the ancient Romans.

BEing loath to trouble the Reader with the tedious definitions of Prodiges, nor with the severall and many opinions of Writers concerning

Dd

cerning

cerning them I will relate onely some storyes of them, and of the times wherein some of them happened; of all which, as the most part of the *Roman* Writers make mention, so particularly *Sabellius* in his Rhapsodicall history of the world; and that from the 11. or 12. Booke of his 4. *Aeneid*, unto the end of his Worke.

During the first *Punick* Warre, (which was the first betwixt the *Carthaginians* and *Romans*) under the Consulship of *Appius Claudius*, and *Marcus Fulvius Flaccus*, which was the foure hundreth and ninety yeare after the building of *Rome*; the *Roman* Histories were then both more frequent, and did favour more of truth and possibility than their former: Wherefore to begin with that time, I observe, that there never happened any remarkeable Prodigie, either in the Ayre, Water, or Earth, after which there were not presently Expiations, Lustrations, Prayers or offerings made unto their Gods, to whose Temples and Altars people of every sex, age, and condition did flock and runne, to pacifie and appease their incensed wrath; which may serve to condemne the neglect and contempt that is in Christians of the like Prodigies, and teach us (as these Heathen did when they chanced) to repaire to our true God, and implore for mercy, and forbearance of wrath at his hands.

To begin then (as I said,) with Prodigies observed in the time of the first *Punick* or *Carthaginian* Warre; of those many admirable ones recorded by *Sabellius*, I finde this most worthy of relation:

The piety of
the ancient
Romans after
any remake-
ble prodigies.

Christians
blamed.

In

In the *Picenean* Territory, *Cneius Domitianus*, and *Lucius Annus* being Consuls, a River was observed for the space of a whole morning, to runne red blood, no accident that might cause it being perceived by any; for which, and some others the like, the *Romans* intituled their *Novendialia sacra*, or expiations for nine dayes; and *Livius* likewise in the time of *Tullus Hostilius* their third King, relateth, that the like propitiatory Sacrifices were ordained for the like causes.

A River ran blood.

The institution of the *Novendialia sacra*.

In *Hetruria* also, (which is now the *Florentines* bounds) the heavens were perceived to burne.

The heavens burned.

In the Citie of *Ariminii*, three Moones at once were one night scene by the Inhabitants; all which Prodigies appeared about the end of the foresaid first *Punick* Warres.

Three Moones

Shortly after, about the beginning of the second warre, after *Hanno* was overcome by *Scipio*, a Childe of a moneth old was heard to crie in the Streete *Triumph*, *Triumph*.

A childe of a moneth old spake.

In the fields of *Amitermin* neere *Rome*, ships were discerned in the skie, and men in long white garments were perceived to march towards one another, but never to meete.

Men scene in the skie.

In the *Picen* Territory it rained stones; and the Sunne and Moone were scene to joust (as it were) at one another; and in the day time two Moones appeared in the heavens. At *Phalascis* the heavens seemed to bee rent asunder: And at *Capua*, the Moone seemed to burne; and, as envolved in a showre of rainē, to tend towards the Earth; *Civi-*

Two moones at once,

*tas ob hac prodigia (saith Sabellicus) lustrata est, le-
tisternium & supplicatio indicta, aliague aliis diis
placamina decreta.*



SECT. 3.

*A continuation of Prodigies, which happened in the
time of the second Punick Warre; with many o-
thers that were seene under the times of severall
Consuls of Rome.*

IN the first yeare of this second *Carthaginian*
Warre, under the Consulship of *Fabius Maxi-
mus*, & *Marcus Claudius Marcellus*, a green Palme
tree in *Naples* tooke fire, and burn'd away to ashes.

A greene
Palme tree
tooke fire of
it selfe.

Rivers runne
blood.

An Oxe
spake.

At *Mantua*, a litle Rivulet or stripe of water
which ranne into the River *Mincio*, was turned
into blood: And at *Rome* it rained blood. An Oxe
was heard there to speake these words, *Cave tibi
Roma.*

Afterward in the Consulship of *Quintus Fabius*,
sonne to *Fabius Maximus*, and *Titus Sempronius*
Gracchus, the similitude or likenesse of great, long,
and tale ships appeared to bee upon the River of
Taracina in *Spaine*: At *Amiternum* in *Italie*, a litle
Brooke ranne blood for severall dayes: In *Albano*
monte in *Rome*, it rained stones. The Sunne at divers
times was seene of a bloody colour: Many Tem-
ples and holy houses in *Rome* were beaten downe
with

It rained
stones.

Lib. 5. Of Miracles and Prodigies.

27

with Thunderbolts from heaven : some of the Citie Ensignes or field Colours were observed to sweate blood ; two Sunnes appeared in the Heavens ; at one time it rained milke, at another stones.

Ensignes
sweat blood.

During the Consulship of *Cornelius Cethegus*, and *Sempronius*, at what time the *Africane* Warres were appointed to *Scipio*, two Sunnes at one time were scene in the Heavens : and the night (which is by nature darke) appeared extraordinary light : A Comet in forme like a burning torch was discerned to reach from the East to the West ; and it rained stones after that notable overthrow given to *Hanniball* by *Scipio*, (which was the last to *Hanniball*) and at the time when the Consull *T. Claudius* was appointed to prepare for *Africk*, to appease some mutinies that had risen there ; upon his setting out to that voyage, the Orbe and face of the Sunne was visibly discerned to be lesse than usuall : Moreover in the *Veliternean* fields, the Earth rent asunder in so huge and frightfull gappes, that trees and whole houses were swallowed up in it ; after which there followed shewres of stones.

Two Sunnes.

The Earth
rend asunder.

In the Consulship of *Cn. Belius*, and *L. Aemilius Paulus*, it rained blood for two whole dayes together : And the Statue of *Iuno* in the Temple of *Concord* at *Rome* was perceived to shedde teares.

A Statue
wept.

Dd 3

SECT. 7.

SECT. 4.

Of Prodiges that happened during the civill warres betwixt Marius and Sylla; of some in Iulius Cæsars time; as, at his passing the River of Rubicone, the Pharsalian warres and at his death, &c.

The Capitoll destroyed by fire from heaven.

AT the beginning of the Civill warres betwixt *Marius* and *Sylla*, a Mule, by nature barren, did foale: The Capitoll tooke fire; and which was lamentable, it being a worke of foure hundreth yeares standing, & famous through all the world, was destroyed; the whole Citie was so shaken with Earth-quakes, that the face of it was wonderfully defaced: and a woman conceived and was delivered of a Serpent.

Images in Temples sweat blood.

When *Iulius Cæsar* had cross'd the River of *Rubicon*, contrary to the decree of the Senate, the heavens, as foreseeing what imminent danger was to ensue thereupon, rained blood. The Statues and Images of their Gods in the Temples did sweat great droppes of blood; and many faire buildings in the Citie were beaten downe with fire and thunder from heaven.

On the same day that the *Pharsalian* battell was strooke, the Statue of *Victoria*, which stood in the Temple of *Minerva* at *Enlide*, was seene to turne its face towards the Temple doore, whereas before it

it beheld the Altar. At *Antioch* in *Syria*, such great noyse and clamours were heard twice a day about the Walls of the Towne, that the people, afrighted with a supposed approach of the Enemy, ranne out of the Citie in their Armes. In the Temples of *Ptolemais*, Organs and other Instruments were heard to play before *Cæsars* death : And those horses, which at the passage of *Rubicon* he had consecrated to *Mars* the day before his massacre, were observed and seene to weepe and to forsake their foode, and stray about. Shortly after his death too, about the proscription of *Lepidus* and *Antonius*, an Oxe being led out to plough, uttered these words to his Master ; *Why urge you mee to worke, wee shall lacke no corne, but men :* and a new borne childe did speake.

Instruments
heard to play
where none
were.

An Oxe
spake.



SECT. 5.

Of Prodigies before the death of Galba ; before the destruction of Ierusalem, and at the end of the Valerian persecution.

THere were such fearefull Earth-quakes before the death of the Emperour *Galba*, that at the renting asunder of the Earth, most hideous noyses were heard, not unlike to the lowing of Oxen : But of all the Prodigies and Miracles that I read of, those which went before the destruction
of

A Comet
like a sword
hang over
Jerusalem.
An Oxe cal-
ved.

Ferrible
Thunders &
Earth- quakes

of *Jerusalem*, were the most terrible, whereof *Iosephus* maketh mention at length, yet my Author recounteth others no lesse memorable, which were these: The Comet in the shape of a Sword that appeared and (as it were) did hang directly over the Citie, before the destruction. An Oxe leading to the Altar to be there sacrificed, in the middle of the Temple, did bring forth a calfe, to the amazement and astonishment of all beholders of it: One night, about midnight it grew as light within the Temple, as at noone-day. Hoasts of armed men, and Chariots appeared in the ayre; and the Priests heard a voyce within the Sanctuary expresse these words; *Let us remove from hence*. About the end of the *Valerian* persecution, before the death of *Galenus* the Emperour, (in whose dayes the Empire began mightily to decline) there was darkenesse for some dayes over all that tract of Earth, in and about *Rome*; There were most dreadfull thunders heard, with most frightfull noyses, as roaring and fearefull lowings in the ayre, and bowels of the Earth; whereupon followed so terrible Earth-quakes, and openings of the Earth, that whole Villages and Townes were thereby destroyed: Lastly, through the dread and terrour of these frightfull noyses, and by the sight of these Prodigies and portentuous wonders, many both men and beasts were stricken dead.

SECT. 6.

SECT. 6.

A continuation of other Prodigies; with a conclusion of this Treatise.

ABout the end of the *Goths* and *Vandals* wars against the *Romanes*, there were seene in the ayre, Armies flaming as all on fire; from which there rained drops of blood: and thereafter followed extraordinary overflowing and deboarding of Rivers, but chiefly of *Tyber*; which of all other Rivers is observed to deboard both most excessively and most often; and these ever goe before some evill to happen to the City; But of all her deluges, none more memorable than that which happened under the Pontificy of *Pelagius*, which overswelled the walles of the City, destroyed all the Corne in the lower Countries, and procured such a famine and Pestilence, that thereby many thousands perished, amongst whom the Pope himselfe, after whom *Gregory*, the most worthy Pope of that name succeeded.

The deboarding of *Tyber* ominous to *Rome*.

In the time of *Sabianus* successor to him, a terrible and Portentuous blazing starre was seene; and the sea cast up many Monsters with visages like men.

A blazing starre-
The sea cast out monsters.

These, and many the like were seene before the dayes of *Bonifacius* the third, in whose time the *Romane* Church obtained of *Phocas* then Emperour, the title of Mother and supreame Church;

for till then the Greeke Church claimed the superiority.

It rained
blood three
dayes.

In the dayes of *Adrian* the second Pope of that name, it rained blood three dayes. A little before the death of *Sergius* (the first Pope that began to change his Proper-name) terrible fiery torches and fleakes were seene in the ayre, with great noyse and thundring.

In the Pontificy of *John* the eleaventh, sonne to *Sergius*, a fountaine in *Genoa* ranne blood in great aboundance.

A huge stone
fell from
heaven.

About the time that *John* the twelfth was for his flagitiousnesse and abomination deposed by the Emperour *Otho*, a great stone fell from heaven: In *Naples* likewise within this hundreth yeares there fell a brownish coloured one of an extraordinary bignesse. In *France* likewise upon a *S^t. Johns* day there fell a great peece of Ice, in a showre of raine, many foete long.

A great peece
of Ice fell in
Rome.

In the yeare of our Lord 1012. when *Ierusalem* was taken by *Annrath* the great Turke, there were terrible earthquakes, and fiery impressions seene over all the firmament, and the Moone appeared bloody.

Conclusion:

But to recount all Prodigies and Miracles which in latter ages have appeared in severall Countries; and to set downe the severall Reasons that are given for them, with the events observed to ensue after every of them, would take up a greater Volume than I intend this whole booke to be; therefore I will here put an end to this discourse.

SALA.



SALAMANDRA.

OR

A short Treatise of the PHILOSOPHERS STONE

SECT. I.

The Historie of the life and death of Antonio Bragadino.



He History of one *Antonio Bragadino* a *Cyprian* Gentleman, which in my time I did reade in *Villamont* a *French* Barones travels and voyages, hath occasioned mee to undertake this taske. This man, saith he, for the good services done to the *Venetians* in the time of their Warres upon that Isle, being retired to *Venice*, and there become their stipendiarie, (or rather pensioner) having fallen at variance with some clarissimo

Ec 2

where-

Bragadines
Fright from
Venice.

His meeting
with an Her-
mite.

His profici-
encie in the
Art of Chi-
meerie.

His Present
to the Senate.

Restored to
favour.

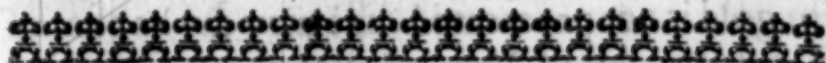
whereupon ensued blood ; not being able to keepe their citie any longer for feare of his life, withdrew himselfe to the countrey ; where being in necessity (through reason of his pension which he wanted) bethinking himselfe how he might live by his wits ; in the end, retiring to a desert, he rancountred with an Hermite, who tooke him to his cell ; and having imparted to him his distresse, got this comfortable answer back againe ; that if hee would be partner with him of the taske which sundry yearēs agoe he had undertaken, that he would not onely relieve him of his present necessity, but likewise (if the event deluded not his intention) would make him one of the richest and wealthiest men in the world : To which discourse having listned, and perceiving it was nothing but the blowing of the coale hee meaned, being allured thereto by his present want, the hope and expectation of future gaine, the venerableness and gravity of the person, the religious silence of so solitary a place, he embraced the offer, and in the end became so expert in the calling, that by his white powders, (for as yet hee had not come to that perfection to make red) he redeemed himselfe from his exile, by presenting the Senate of the Citie with Ingots, to the value of fiftie thousand Crownes, with certificate, if that it should please them to restore him to his wonted liberty (for thither was his affection carried beyond all the parts of the world, in regard his Mistresse was there) hee should enrich their Treasure for ever. Wherewith the Senate being much pleased, received him to their

their favour againe, where he was entertained like a Prince, attended with a Guard not so much for honour of his person, as for feare he should have left them, and gone otherwhere; while in the end his *Ingots* being suspected and called in question for the validity of them, his Guard beginning to vilifie him, and to neglect their wonted strict attendance, hee under cloud and silence of night, with his Mistressse, and a black dogge which still followed him, fled their Citie and Territory; and in the end having come to the Duke of *Baviers*' bounds to *Germany*, was there apprehended and hanged upon a gilded Gybbet, as one who had deluded the world by his sophisticate monies.

He is suspected of Treachery.

Hee flies to *Bavaria*.

He is hanged on a gilded Gybbet.



SECT. 2.

The reason that moved the Author to handle this matter: The different blessings betwixt the Indians and Christians: the definition of the Philosophicall Stone; the generall way and matter whereof it is made.

THe History, I say, of this unfortunate man, and rich couzener, made me the more curious and desirous to know the nature of so rare a thing as that which they call the Philosophicall Stone, which if men might attaine to, the *West Indies* should not bee so much frequented as

The plenty
of gold which
the West In-
dians have.

they are; but O how great is the wisdom and power of the Creator of all, who reserveth the perfect knowledge of so high a secret to himselfe, and imparteth it but to very few, knowing the insatiableness of the heart of man; and to these who know not the worth of gold, hee doth bestow it in such plenty, that their ordinary household-stuffe, as Tongs, Chuffles, Pots, Tables, and Cupbords, &c. are made of it whereas they starve in a manner for that whereof we have such store; and which they esteeme as much above their gold as we prize their gold above our other necessities.

The true
matter of
gold.

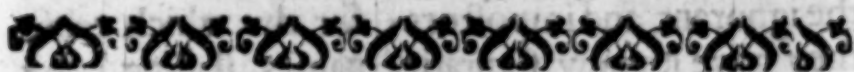
So far as I can learn, I find that the Philosophicall stone (by the *Arabes* called *Elixir*) is the very true and just seed that engendereth and begetteth gold: For gold is not procreated (as I may say) either of Brimstone, nor of Mercurie, nor of any such thing as fraudulently some suppose and give forth; but it is to be search't and found out of gold it selfe, and that most purified: for there is nothing in Nature which hath not of it, or rather in it the seede of its owne kinde, whereby it may be multiplied; but yet hardly by Art may it be drawne out, by reason that the greatest and most vigorous strength of that seede consisteth in a certaine oylie substance, or rather adhereth to it; which, whensoever by fire wee goe about to draw out, or segregate from the substance it selfe, it consumeth away; which not being so in gold, because by the violence of no fire it can be so burnt away, but that it may abide the whole strength and force of Art; therefore out of it

it onely that seede or Elixir may bee extracted,
whereto it seemeth the Poet alludeth, when hee
saith, — *Unquoniam nil deperit auro*

Ignē, velut solum consumit nulla vetustas,

Ac neque rubigo, aut arugo conficit ulla

Canita adeo firmis illic compagibus haerent.



SECT. 3.

*The Authors proposition: the reasons of its denomi-
nation; opinions of most approved Authors
touching it; and of the Possibility and feasi-
bility of it.*

I Passe by the methode and order of Fernelius in
his last chapter *de abditis rerum causis*, as being
too speculative; for I will here set downe a more
full and ample description of it, and such as hath
beene imparted by the most accurate wits that this
age affordeth, after I have a litle spoken of the
names both of it, and of the Authors who treat of
it, and have resolved some scrupulous difficulties;
yet my intention herein is rather to let the Readers
know the most approved opinions of the most lear-
ned Writers on this subject, then definitively to set
downe mine owne.

It is called a Stone, because the things whereof
it is composed are consolidated and coagulated in
a hard and heavy (yet friable) masse, and thereaf-
ter

ter reduced to a most subtle powder.

It is called the Philosophers Stone, because Philosophers were the first Inventors of it, and they best know the making and use of it.

Ripleus c. 3.
P. 74.

Iodoc.
Grenerus p.
36.
Flos Flor. p.
35. 37.

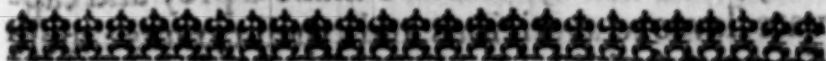
Thom. A-
quin. ad fra-
trem, c. 1.

They give it an infinite (almost) number of names partly to set out the matter, nature, and properties of it, and partly to obscure and hide it from the ignorant and impostors; for the which cause they gave it many figurative names, styling it by some part of the matter whereof it is made, and by similitudes, as they call it *Salamandra, quæ igne concipitur, igne nutritur, igne quoque perficitur*: It is conceived, nourished, and perfected by the fire and in the fire: *Philosophi celare volentes veritatem quasi omnia figurativè loquuti sunt.*

Many thinke the Philosophers Stone a thing impossible to be got, but a multitude of most ancient and modern Philosophers have thought otherwise, who knew both the theorie and practick of it: And of the transmutation of mettals, *Libavius* bringeth in a great number of them that testifie the same, in his Appendix *de natura metallorum*, amongst whom hee produceth *Geberus Hermes, Arnoldus, Thomas de Aquino, Bernardus comes, Ioannes Run- gius, Baptista Porta, Rubens, Dornesius Vogelius, Penotus, Quercetanus, & Franciscus Picus*, who in his 3. Booke c. 2. *de auro*, declareth eighteene particular instances, whereby he affirmeth plainly, that so many times hee did see the transmutation into silver and gold, so that the possibility and factibility of the Philosophers Stone and transmutation is evident.

If

If any would alleadge difficulty, it is true any thing is difficult, and even the most facile thing is such to them that are ignorant, but to those that know it in speculation and operation, it is most easie, even as *ludus puerorum*, and *opus mulierum*.



SECT. 4.

That the making of the Philosophers Stone is less expensive and laborious than many things wee both use and wear; why the makers of it enrich not themselves and others.

THe true making of that Stone is neither expensive, nor long, nor wearisome to those that have the dexterity of it.

Between the Barley graine that must be sowne, and the *aqua vite* that is made of it, there is both a longer time, and many more points of labour: And betwixt the linnessed, and the linnen cloath wee were, there is a longer time, and much more labour than in the framing of Philosophers Stone, as these blowers would have the world beleieve.

It is true, many chymicall Philosophers so soone as they attained this precious Stone, the very knowledge of it delighted them more than worldly gaine; and they made more use of it in Physick than in projection. And if any would aske; what was the cause they made not themselves and all

their friends most excellently rich. It may be well answered, they lacked not, they had contentment; they delighted more in theory than practick: they *disdained* to bee gold-makers to those that were greedy, or to those that were through idlenesse needy, and were *afraid* to be made a prey and captivate slaves to avaricious and cruell tyrants: these things and such like made them obscure and hide from the world what they knew or could doe, intending rather to have by the Philosophers Stone a balsamick universall medecine than the feminary of gold.

Many have written divers treatises of this subject some one way some another way, some more mystically some more plainly; and what is darke in one, is found againe more cleare in another, specially to such as are diligent Readers of the *Hermeticall* Philosophy, I will therefore set downe here what by most approved consent of all, is the most easie and compendious way to perfitte the Philosophers Stone, without prejudice to others, that thinke they knew a better way. In this my discourse there shall be nothing obscure, but that which a *flimsy* art is may easily understand.

SECT.

Lib. 3. Of the Philosophers Stone.

SECTION 3.

SECT. 3.

A generall relation of the matters and materials requisite to this worke; and in what time it may be perfected.

And first, these principles and grounds for this worke are to be understood, to wit,
1. Every mettall consists of Mercury as a common versatill and flexible matter of the which all mettalls are, and unto the which all may be by Art rednced. 2. The *species* of mettals, and their specifick and essentiall formes are not subject to transmutations, but onely the *individuals* of the *species*. 3. All mettals differ not in their common nature and matter, but in their degree of perfection and purity. 4. Art surmounteth and over-reacheth Nature, for Art assisted by Nature in a short space may perfect that which Nature otherwise by it selfe was a thousand yeares in persfiting and accomplishing. 5. God hath created every mettall in its owne kinde, and hath implanted in them (specially in the perfect mettall) a seed whereby they may be by Art multiplied.

The chiefe matter of this Worke is most purified gold, and silver joyned together in the progresse of the Worke; and (as some hold) Gold alone in operation *ad rubeam tincturam*, and silver alone *ad*

Ff a

albam;

Tauladan, p.
28. 9

Rosarum, p.
18.

Libanius
Mullerus,

Of the Philosophers Stone. Lib. 5.

Aquinas c. 3.

Dausticus.

p. 16.

Monachus

p. 16.

Benedictus

p. 56, 57, 58.

&c.

Moriennes

two princ-

ples

Solut. & coa-

gular.

Moriennes

Theob.

Arnaldus.

albam; and Mercury according to Art well prepared, is the principall perfecter of the Worke.

The onely and chiefe key in this Worke, is that black brat that ariseth and is emergent out of the solution of *Sol* and *Luna* with *Mercury*; called *Caput corvi*; *vermilion*, &c.

The chiefe workes are *Solutio* and *Coagulatio*; by solution *caput corvi* is obtained, as a seminary arising from the dissolved *Sol*, *Luna*, and *Mercurius*; and must be chiefly regarded. By coagulation *caput corvi* is fixed and fitted for impregnation and fermentation. Solution whereby *caput corvi* is obtained, is more facile; but coagulation is more difficult.

The time to finish the whole Worke is not yeares, but some moneths; the expense are not many, but tollerable, and the paines are easie, with some diligent attendance on the Worke: One Furnace Philosophically made for distinction of the degrees of the fire will suffice: And one or two Glasses will be needfull; the Glasse must be a Vi- all in forme, and with a long small cragge or neck, the body of it must be round, and so devised, that consisting of two parts, the inferior part may receive the superiour part, that it may be closed skillfully, and opened againe at the Artificers pleasure.

SECT. 7.



SECT. 6.

Of the 5 degrees whereby the Worke is perfected,
and first how to bring it to Solution.

THe whole artifice in composing the Philosophers Stone consists in five distinct operations each following other in order, to wit, Solution, Coagulation, Fermentation, fixation, and Multiplication.

Solution.

Take of Mercury (made menstruall by calcination, so subtrily prepared by sublimation, that it may become sharpe and piercing) twelve ounces: of *Solis* the best sort refined by frequent fulmination, and drawne forth in most thinne plates or pieces, one ounce; upon the which in a Glasse powre some of the Mercury about the fourth or fifth part. Set the Glasse in a lukewarme heate in the first degree on ashes, and so stopped and closed, that nothing fall in nor out of it, when it is stirred and inclined; and let all stand for the space of 15, or 20 dayes, during the which time a part of the *Sol* will be dissolved into the Mercury, by reason of the internall fire and corroding acrimome thereof, powre off that menstruall and keepe it, and powre on another part of the same, doing as is said before; and let all stand eight or ten dayes, and so forth doe

Ff 3

till

Scorus, p. 61,
62.

Exercet. 3. in
cu bism.
Arnald. in
specie.

Scala philo-
soph. p. 103:
Mullerus de
lap. philosoph

till the *Sol* be all dissolved into the mercuriall water, which after the commixtion and resolution of *Sol* into it, Mercury which before was menstrual, now is of another temper, and is called *lac virginum, aqua vita* wherein *Sol* is fully dissolved.

Put all this *lac virginum* in the Glasse with the foresaid degree of heate every eight or ten dayes, then will appeare a black brat and *mater*, partly emerging and swimming above, and partly subident which (the watter or *lac* being first powred off) must be collected so oft as it appeareth, and is to be kept for coagulation: It is called *caput corvi, sulphur auri crudum & nondum fixum*.

Rosarium p.
189.
Libanius
Arnaldus.



SECT. 7.

How from Solution to make Coagulation.

Lullius
p. 116.

Arnaldus.
Mullerus.

Miracula
chymica.
Libanius.

Coagulation: put the sulphur *Solis* into the viol-glasse close stopped, and set it in the foresaid first degree of heat for eight dayes, till it bee almost exsiccated with the humidity of *lac virginis* that was left inherent in it; and then open the glasse and poure thereon as much of the *lac* as is the weight of the *caput corvi*, and mixing it well, let it stand one or two dayes till they both be coagulated in one, and become almost dry; and so forth doe thus till all the *lac* bee drunke up, which will be about the space of 90. dayes more or lesse, according

ding as the matter is of quicknesse and activity; and if this *lac* or *aqua vita* bee suspected to have contracted any dulnesse and superfluous humidity while it was in the former worke of solution: in that case it is to bee prepared againe, quickned, sharpened, and made fitter for this present worke of Coagulation.

Both these, to wit the *Lac virg.* and *Sol.* being Coagulat as is said, the Coagulation must yet goe on, and with the second degree of heat for the space of a month, the matter Coagulat must stand in that heat, till there appeare *canda parvonis*, that is, a variety and multitude of colours; and at length it will turne to a white colour, called *corpus album*, *sulphur album*, *coagulatum album*, *terra philosophorum*, &c.



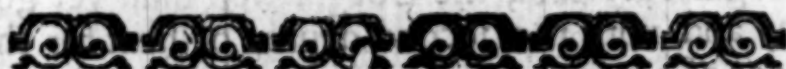
SECT. 8.

How from Coagulation to produce Fermentation.

Fermentation: take as much of purified and laminated *Sol.* (as answereth to the third part of the foresaid *coagulatum album*) and of menstruall Mercury foure parts of the weight of *Sol.* Amalgamaz them and put them in the viol on a lukewarme heat for 15. dayes, till *Sol.* by the Mercury bee reduced into a subtile calx. Then amalgamaz in a marble mortar all the foresaid *coagula-*

Isaacus.
Lullius.
Calid. c. 6.
Rolinus.
p. 283.
Dastin. 15.
p. 30.
Mullerus.
Libanius.

rum album with the *Calx Solis* and menstruall Mercury, then put altogether in the viol, and set it for a month in a heat of the second degree: then set it in a heat of the third degree, and let it so continue a good space till it become an hard white heavy masse, and from thence to an yellow colour, and from this to an orange colour, and thereafter incline to be redish coloured.



SECT. 9.

The way to bring the worke to Fixation.

Scorus p. 61.
301.

Fixation: for projection and transmutation, take the halfe of the said masse and bruise it, put it in a luted glasse, and set it on sand in a furnace, and increase the fire unto the fourth degree, that all may be made so fervent, that if a drop of water do fall on the sand it make an hissing, it must stand so, for 40. dayes, till the pulverished masse become a most subtile powder.

And for projection of this powder, one part of it upon a 100. parts of Mercury vulgar (but washed with vinegar and salt) will make the whole, a perfect tincture, and as some hold; one part of this hundredth fold tincture projected on another hundredth parts of Mercury: in whole will make and afford 1000. parts of tincture for gold, whereof one part projected on 100. parts of warme Mercury, will presently transmute it into perfect *Sol*.

SECT.



SECT. 10.

From all the former, how to perfectionate Multipli-
cation.

Multiplication : is that wonderfull part of this artifice, whereby the stone being once made, needeth not to be made over againe; but may be multiplied to suffice continually, and it is thus done. Take the other halfe of the masse left in Fixation, or what quantity you please of it before Fixation, and put to it of *Lac virginum* or *aqua vita* (prepared and provided for the purpose, and made after the manner aforesaid) a third part, and handle it after the same manner as is set downe in the worke of Fermentation, and it will become as fit both for Fixation to Projection, and Multiplication as before, and will ever be, To oft as it is re-iterate.



SECT. 11.

A short recitall of some other wayes of perfecting it, used by some Filij artis, and why it is called Salamandra.

IF any please to make the Philosophers stone onely *ad album*, that is for transmutation of Mercury into *Luna*, he may observe this foresaid methode,

Gg

thode, which is onely *ad rubrum*, and so proceede in all things after that same manner, except onely two things. 1. for *Sol* take *Luna* fined and battered out in small and thinne plates. 2. when it cometh to the worke of Fermentation, give it onely a heat and fire in the third degree, so long till the Fermented masse become somewhat hard, and then proceede with it to Fixation and Multiplication as is said in the operation *ad rubrum*.

Some joine together both *Sol* and *Luna* in the progresse of the worke till it come to Fermentation, and then to obtaine *tinctura alba* for transmutation into *Luna*, they put to *Luna* for the Ferment, and to obtaine *tinctura rubra* for transmutation into *Sol* they put to *Sol* for the Ferment, & so they proceed as is said.

There are diverse otherwayes in the making of the Philosophers stone, some more compendious, some of a longer processe, but this that is here set downe is the best.

The Philosophers stone is rightly called *Salamandra*, because its bred and nourished in the fire. It is a treasure both for turning other mettals into gold or silver, and for any universall medicine to cure and prevent almost all diseases. Which so admirably being once by art found out, doth shew its power and force; that with *Augurollus*,

Agurellis.

*Ipsius ut tenui projecta parte, per undas
Aguoris: Argentum vivum tum si foret aquor
Omne vel immensum, Verti mare posset in aurum.*



OF THE WORLD, Its Beginning, Frame, and Ending; At least the conjectu- rall Ending.

SECT. I.

Of the various distractions of Philosophers in their opinions concerning their Gods; and upon how ill grounds they were settled.

IN perusing the Monuments and Writings of the old Philosophers, as I finde them abstruse and intricate in divers points of their professions; so particularly I remarke their irresolutions, and likewise the differences amongst themselves.

Three special points wherewith the ancient Philosophers was most perplexed.

selvës. Of these speciall heads following, to passe by divers others which I have observed in their Poets; First of the true nature and essence of the Godhead which they worshipped; Next of the descent of their soules into their bodies, and of the event of these soules when they should leave them: And lastly, of the beginning and ending of this World, of every one of which a little here.

Alwayes in handling these points, and the first principally I exempt *Plato* and *Aristotle*, for what their opinion is herein, I have touched in that Title which sheweth, how neere in all these three they jumpe with our Christian Religion, which otherwise distracted the rest of the Sects.

To be briefe then, a *love principium*; this is admirable, that some Gods they admitted as not perfect ones; whence *Ovid* saith, or at least bringeth in *Jupiter* to this purpose.

The opinions of the old Philosophers concerning the nature of the Gods.

Quos quoniam nondum cæli dignamur honore,

Quas dedimus certe terras habitare sinamus;

as if in any Deity, there should be imperfection; But, why not so to them? seeing *Chrysippus* admitteth some mortall as well as immortall, which at the last conflagration of the world shall all be consumed by fire; so that of their *Dii minorum gentium*, none shall goe safe, except *Jupiter* alone.

To passe by, that *Stato* exempts the Gods from all charge and office, ascribing all things to be done by Nature; presupposing, as many restoratives ordained for the upholding of it, as there are destructive appointed for its undoing.

Was

Was there not Gods appointed by them, as the Patrons to all vices, and authorizers of it? yea they set them at oddes one against the other;

Mulciber in Troiam pro Troia stabat Apollo.

And againe,

*Neptunus muros, nagueque immota tridenti
fundamenta quatit, &c.*

And through all *Homer*, *Minerva* aideth *Achilles*; *Iupiter* lamed *Vulcan*; he againe enchained *Mars* and *Venus*, and the like fopperies.



SECT. 2.

Of the severall sorts of Gods amongst the Heathen; that they imagined them to bee authors of evils; that they were but mortall men: And some opinions of Philosophers concerning the nature, beeing, and power of their Gods.

IT was some way dispensable, yet at least (*quoad eas*) to have fained Gods almost for all naturall productions, as *Flora* for the flowres of the Gardens, *Bacchus* for the Wines, *Ceres* for the Corne, *Inno* for Childe-births, and so forth: yea and to have prescribed one for every Craft or Trade; yea and one for the tutelage of every Countrey.

But that they should have imagined their Gods so irreligious, as to have beene sawtors or authors, much lesse actors of evill, I thinke farre beneath the beliefe of any (*ex facie*) of the lees and dregges of the

The Philosophers not on-ly admitted their Gods as inventers of good, but fomenters of evill also.

the people, much more of a wise man and a Philosopher; which moveth mee to thinke, that those were wisest amongst them, who medled least to speake of their Gods, and vexed not themselves with their enquiry; but with *Socrates*, esteemed the best judgement that they could make of their Gods, to be, to judge nothing at all of them.

The most diligent inquirers in the end discovered them to have beene but mortall men, who in their life-time had proved worthy either in Warre or peace & were deified after their death: And accordingly *Augustus Caesar* had more Temples and pompous solemnities instituted in his favour, than *Iupiter Olimpius* almost had.

So that to obscure the basenesse of their Gods, it would seeme, that they were moulded or painted of old with their fist closed upon their mouthes, or at least their fingers, as willing thereby living men, to speake either sparingly of their nature, or nothing at all.

Thus *Pythius Apollo* said well, and before him *Timaeus* to his Disciple *Socrates*, speaking of the nature of the Gods;

*Vt potero explicabo, non ut certa
& fixa sunt qua dixero, sed ut homunciolus
probabilia conjectura adumbrans.*

And in other places,

Sperantium sunt haec non probantium.

But to enter here into the diversity of their opinions concerning the Deity the nature and descent of their Gods I am loath, lest wee should
 imagine

imagine those Philosophers, in stead of wise men, as they were called, to have beene starke madde: *Thales* esteeming Gods to bee spirits, which had made all things of water, for he was the first that pried in the cabin of their secrets: *Anaximenes* on the contrary, willeth them to be of the ayre, because they (as it) should bee in continuall motion: Others of no little note, repute the Sunne and the Moone with the Starres to be Gods.

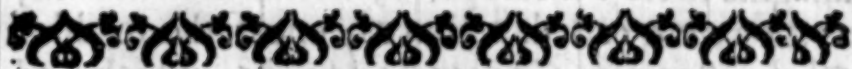
Labentem cælo qui ducit is annum

Liber & alma Ceres vestro si numine, &c.

Some againe made that Law imprinted in our hearts, by which we are inwardly (as it were) driven to doe good, and to abstaine from evill: *Pythagoras* reputed God to be a certaine Spirit, spread and shed abroad on, or in the nature of all things; so that with him all were full of Gods: Others finally flatly deny that there was any at all, but that all things had beeing as they are, and should continue in a perennell motion, vicissitude, and change: But I should weary you if I should but relate every one of their severall opinions.

The Philosophicall error concerning the discent and progenie of their Gods.

SECT. 3.



SECT. 3.

Pythagoras opinion concerning the transmigration of soules rejected; of the coupling of the soule and body together; with severall opinions of the ancient learned men concerning the substance of the soule.

The errors
touching the
descent of
their soules.

What perplexity and doubts were the ancient Philosophers plunged in concerning the transmigration of their soules? their renowned *Pythagoras* avouched that strange opinion of *Metempsychosis*, of the change or transplacing of the soule of a dying man, to, and in the body of a new borne creature, whether beast or rationall body; and then that body dying againe, that selfe same soule to remove and regaine a new habitation, and so to continue from body to body. To which so fond an imagination, I thinke no old womans fable comparable.

And yet I excuse some way the irresolution of the Philosophers in this point, much more than in the mistaking of their Godhead; because I finde, that besides them, even the best Professors have doubtings in this point; that some of our Christian Fathers have beene touched with an admiration how the soule and body were coupled and yoked together, whence one of the most famous is brought in, saying that

Modus

*Modus quo anima adherent corporibus
omnino mirus est, nec comprehendi ab
homine potest;* as before him *Plinius*,
Omnia abdita & in natura majestatis gremio reclusa;
So that with the Poet, no marvell though they
should say likewise,

*Ignoratur enim quæ sit natura animal
Nata est, an contra nascentibus insinuetur.
Et simul intereat nobiscum morte perempta
Antenebras orci visat, vastasque lacunas,
An pecudes alias divinitus insinuet se.*

The alterations and disputes concerning the
substance of the soule are so many and different as
is a wonder; some deny there is any soule in the
body, but that our bodies move of themselves, by
the instinct and power of nature; Others againe
confesse that there is a soule wherewith our bodies
are vivified, say, it is a mixt thing composed of wa-
ter and earth; others, of fire and earth: *Empedocles*
wills it to be of and in the blood; thus *Eurialus*
dying, was said to render *sanguineam animam*,

— *Sanguineam vomit ille animam*: *Zeno* more
judiciously in that kinde, esteemeth it to bee the
quintessence of the foure Elements: *Hypocrates*, a
spirit diffused through the whole body and every
part thereof, *Ita ut sit tota in toto, & tota in quali-
bet parte*: It was a generall and received opinion,
that in this world there was a generall Soule, *Ani-
ma mundi*, from which as all particular ones were
extracted, so being separated from their bodies,
thither they returned againe, according to which

Hh

Virgill

Divers opini-
ons of the
Philosophers
concerning the
substance of
their soules.

Virgill saith, — Deum namque ire per omnes,
Terrasque tractusque maris, &c.

And againe,

Scilicet hinc reddi deinde ac resoluta refert
Omnia, nec morti esse locum. —



S E C T. 4.

The former Heathnick opinions confuted by our Christian Beliefe; that they differed concerning the time of the soules continuance, and place of its abode: how they thought soules after the separation from the body to be rewarded for good or ill, &c.

THe last most plausible opinion, and which hath purchased to it selfe most Patrons, was, that the Father infused it into the Childe by generation; from which opinion few have swarved but Christians, who are taught to beleieve that the soule is given us from above.

The Jewish Church held (as wee) *Caelitus demissa*, and not *ex traduce*: Thus Salomon, Eccles. 12. ver. 7. The Philosophers generally held the contrary: the Poets (whom I account Rythmicall Philosophers, as Philosophers unversified Poets) are copious in this subject.

Fortes creantur fortibus, & bonis,

saith the Lyrick,

Nec imbelles farocem,

progenerant

progenerant aquilam columba :

And againe another,

Dolus vulpibus, ac fuga cervis

A Patribus datur.

Now as they differed in opinion touching the substance and discent of their soules; so no lesse varied they about the time how long, and the place where the soules should continue after the dissolution of their bodies.

The different opinions concerning the event of soules after their separation from their bodies.

The *Stoicks* maintained, that the soule shall remaine a certaine space after the dissolution from the body, but not ever: *Pythagoras* and his Sect, of whom a little before, that the soules of the departed did remove from that body to another: of which sort yet some were of opinion, that of these same soules some removed to heaven againe, and within a space thereafter reddescended to the lower parts, which *Virgill* intimateth when hee saith,

O Pater ! Anne aliquas ad calum hinc ire putandum est

Sublimes animas, rursusque ad tarda reverti

Corpora est :

And againe,

Lathos culices & longa oblivia potant.

Plato (and that he hath out of *Pindarus*) esteemeth that as a man hath lived well or ill in this world, accordingly his soule shall bee requited hereafter; if well, that then it shall be rejoined to the Starre to which it was first assigned; if ill, that then it shall be coupled to one of some malignant influence.

Hh 2

Finally,

Finally, *Apuleius Madaurensis* in his tractate of the Moone, bringeth in *Plutarch*, maintaiining, that the foules of well doers here during their abode in bodies, to be converted into Demi-gods or Saints: On the contrary, the ill ones, or at the least the worst are turned into Demons: As for the absolute eternity of them, they medled; with that opinion rather more *Sperantium quàm probantium*.

By this preceding discourse, wee may see how farre we are obliged to the infinite mercies of our great God, who as he hath revealed himselfe truly unto us, at whom these ancient wise men but in a glimpse obscurely aymed; so hath hee ridde our mindes of that perplexity, wherein they were wrapt and infolded touching both the discent and event of our Soules.



SECT. 5.

*Philosophicall tenents of plurality of Words confuted;
of Gods Creation of male and femall of all living
Creatures.*

BEcause the discourse of the World, and the Philosophers opinions touching the beginning, continuance, and ending of it, is the Theame w hich directly here I intend to handle; I haste me to it.

That there were more worlds than one, *Demon-
stratus;*

eritus, Epicurus, and others maintained as an undoubted verity, whence the Poet,

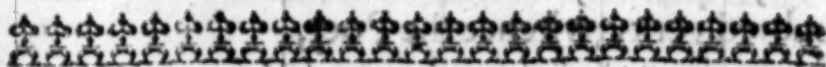
Terramque & Solem, Lunam, Mare, cetera quæ sunt

Non esse unica, sed numero magis innumerali.

The reason whereupon they grounded the probability of their opinion, was this, because that in all the Vniverse there was nothing created alone without a mate or fellow, as in all birds, fishes, beasts; Yea in plants and hearbs, and in man their under Monarch may be seene; but as *Aristotle* himselfe hath confounded that opinion of his, prior Philosophers concerning their plurality of worlds, so naturall reason may leade us by the hand to its convincing; for, if there was another world, it behoveth to be as this is, spherite and round, because that of all figures the orbicular is as most perfect, so most spacious; then if they were round, howbeit in their sides they might touch and kisse one another, yet sure betwixt the superior convexes and lower concaves, there behoved to bee vacuities, which their owne Maximes admit not, for *Natura*, say they, *abhorret à vacuo*.

As for that conjugality (if abusively I might say so) of all living Creatures in paires, it was ordained by the great maker for the propagation and multiplication of their kindes, which otherwise had decayed; for with *Apuleias*, *Cunctatim sumus perpetui, sigillatim mortales*.

Their reasons
why there
were more
worlds than
one.



SECT. 6.

Severall opinions of severall Phylosophers concerning the Worlds Eternitie; their naturall reasons for approving of it; and what the Egyptians thought concerning the antiquitie of the World.

Opinions
concerning
the Eternitie
of the World.

THeir other opinion of the Eternitie of the World hath had more Patrons than this, and that so much the rather, because that seeing the Godhead, their supream *Ens* was from all Eternitie, that therefore I say, hee could not then even from all beginning (if Eternitie could admit a beginning) be a Creator without a creature, for otherwise he should have nothing to do, as they say.

So that those of this opinion doe not infringe, that of the most famous in all the Greeke schooles, favoring the Eternitie of the World saying, that the World was a god created by a greater *One*; this World being a body composed of soule and bodie, which Soule had its seate and residence in the Center, from whence it diffused by muscalle numbers, her force and power to the remotest extremities of the circumference, having within it, other lesser gods, as the Seas, Aire, Starres, which doe corresponde to other in a mutuall harmonie, in perpetuall agitation and motion. The Earth sending

ding up vapor to the Aire, the Aire rayning downe upon the Seas againe, the Seas by secret conduits and channells transmitting them into the earth like veines ramifying themselves and bubbling up in fountaines, rivers, and brookes, &c. The Sunne and starres infusing their force upon all Creatures and vegetables: The Moone hers upon the Sea. *Apuleius* as in his *tractat de Mundo Luna, & Deo*; *Socrates* aimes at this above spoken: So *Herodotus* when he enquired at the *Athiopian* and *Egyptian* Gymnosophists what they thought of the Eternitie of the World, had for answere, That since their first King of whom they shew him the picture exquisitely done, There had runne out a leven thousand and so many hundred yeares, and that by their observations, the Sunne had changed foure times his ordinary course, and the heavens theirs also.

And *Diodorus* setteth downe that in his dayes the *Chaldeans* kept Register of foure hundreth thousand yeares since the first beginning, which admit, were but *Lunarie* (which is problematicke neverthelesse) it is above all measure farre beyond the reckoning of their neighbours the *Jewes*: To this opinion of the *Egyptian* and *Indian* Gymnosophists, favouring the Eternitie of the World, may be added the opinion of the *Materiarie Philosophers*, who howbeit they admit the beautie of the World to have come unto it with time, yet they hold confidently that the *Chaos* and matter it selfe (whence I call them *Materiarie*) was coetanean and contemporary from all beginning with the Maker.

The Gymnosophists, answering concerning the Eternitie.

Maker: Of this opinion was *Hesiod* in his *Theogonia* saying,

παντ' ἔμην πρῶτ' ἐκ χαλκῶ, &c.

Now to speake of the divers opinions of the other old Philosophers who admitted a beginning to this world, and what principalls they supposed for it.

The Philosophicall differences concerning the beginning of the World.

Heracitus was of opinion that the world was begunne with fire, and that by the fatall order of the Destinies, it should bee destroyed by it againe, and dissolved in flames; yet in such sort, that after some ages thus being purified, it should be renewed againe, which *Leo Hebraeus* some way admits.

Thales againe would have the beginning of it to have beene of water, having fished that out of *Homer* as it seemeth and *Virgil* from him againe:

At nos interram lympham vertaminor omnes.

And we often reade in *Homer* and *Virgil*, *pater oceanus*.

The fond conceites of those who imagined all things to be by the encounter of *Atoms*.

But what more foolish or idle conceit than that of *Democritus* and *Leucippus*, who imagined the beginning of the world and of all contained therein to have beene by the casuall encounter of *Atoms* (which are little infectile bodies (not unlike the Moates which wee see to tumble and rowle about in the Sunne beames, when they pierce any glasse-window or cranice, whose encounter like unto these, say they, doe either perpendiculagor or obliquely, sphericall or angularly, crowde together
this

this globe, and all the diversities in it, whereof indeede I may say with the *Satyrist*:

Spectatum ad miserrimum sum teneatis amici?

This is that which *Virgil* favoereth when he bringeth in old *Sileneus* his *Canto* to this purpose, in these words:

*Nemque canebat uti magnum per inane coacta
Semina, terrarumq; animaq; marisq; fuissent
Et liquidi simul ignis ut his exordia primis
Omnia*

— & ipse etiam mundi concreverit orbis.

All which opinions in this may be refuted, that they derogate too much from the power of God, whether they would have had the world eternal, or of any preexisting water, insomuch as they thought not him who is able to draw light out of darknesse, sufficient to have framed by his very Word all this Fabricke of nothing, or yet if this *Chaos* had beene drowned in oblivion, and sunck in darknesse, not to have raised and reframed a new one, by the same Word and his power.

A theological
observation
upon the pre-
misses.



SECT. 8.

The most approved opinion of all Philosophers concerning the Worlds beginning and matter: the infallible truth of it; and a checke of Augustines against over curious inquisitors after those and the like mysteries.

THe more tolerable opinion was of those who held all things to be composed in time of the foure elements; admitting the Creatures of the Etheriall Region to bee of a like kinde and species with these of the Sublunary, and yet they thought not that any thing of them could be, but by some preëxisting matter.

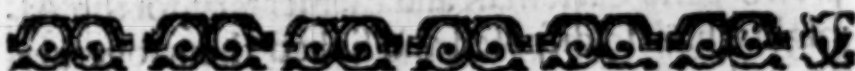
Whereas we hold sacred anchor of veritie, that the mightie infinite, eternall, and all-powerfull God, created this World of nothing in and with time about five thousand sixe hundereth and odde yeares agoe, and that hee shall destroy it in time knowne onely to himselfe.

And if they aske what God was doing before this short number of yeeres; We answered with S. *Augustine* replying to such curious questioners, that he was framing Hell for them. Seeing then it was created, and with time, it cannot therefore be eternall: (these two being repugnant and incompatible *ad idem* as we say) which indeed to mortall men in-

lightned

Our Christi-
an beleeve
touching the
Worlds be-
ginning and
ending.

lightned but with nature only, is hard to beleeye: As for *Trismegistus* in his *Parmander*, and *Plato* in his *Timeo*, what they have spoken more divinely than others herein, no question but they have fished it out of *Moyſes* his *Pentateuch*, who flourished before them, as *Diadorus* and *Iosephus* both witnesse.



SECT: 9.

How Philosophers differ from Christians in the wayes whereby God is knowne; the Parts whereof the world is composed; the division of the Caelestiall Spheares, wherein severall varieties may be observed.

THere are three wayes of knowing God; first affirmatively by which, what ever good is in man, they with us acknowledged to be in God, in a supereminent manner, and *in abstracto* (as we say in the schooles) Secondly, by denying what ever evill is in man, can any wayes be in God which is called the way of negation; But in the third way which is called the way of causation, by which we acknowledge God to be the causer of all things only. There they did mistake in so farre as they imputed the cause of many things to a continued series and a perennall succeeding of one thing to another, for although Saint *Augustine*, Lib. 2. de civitate dei. cap. 17. and 4. holds that nature hath charecterised that much in every one, to know the

Three wayes
of knowing
God.

finger of God in their Fabricke. For that which to us Christians are as undoubted truths, to them were dubitable grounds, grounded upon their physickall maxime. That *ex nihilo, nihil fit*.

A brieft description of the World.

But leaving these opinions of Philosophers (as almost all Cosmographers do) I divide the world into two parts Cælestiall and Elementary; for the Almighty hath so disposed and linked them together, That the Elementary or lower world cannot subsist without the Cælestiall; Her vertue, power, motion, and influences; for effectuating whereof the heavens are framed like a concaved Globe, or a hollow Bowle, whose center or middle body is this earth, environed about with these heavens, distant equally at all parts from it.

The Cælestiall Region, which properly is all the bounds betwixt the Sphere of the Moone, and the highest heavens comprehendeth in it eight Starrie Orbes, of which eight; seaven Planets have their spheares betwixt the starrie firmament and the ayre: but so set that every ones orbe is lesser than the other, untill they reach the Moones; which is the least, last, and lowest spheare of all.

The division of the heavens and Cælestiall Spheares.

The eight orbe which is the starrie firmament comprehendeth all the rest of the fixed starres, and under it the planetary spheares before mentioned; But yet so, that it againe is environed by one greater, more ample and capacious, called the ninth spheare; And this ninth is girt about againe by that most supreme of all, called the tenth or *primum mobile*, above which againe is the Emperian or Christa-

Christaline heaven, which is the domicile and habitation of the blessed Spirits.

The tenth spheare or *primum mobile*, is that in order, by whose perennall revolution, the starrie firmament and all the rest are rowled and wheeled about in the space of 24 houres from East to West, upon the two Poles of th world called the South and North, or Polearticke or Antarticke.

*Hic vertex nobis semper sublimis at illum
Sub pedibus styx atra videt, manesque profundi.*

And yet that revolution is not so swift, but that the Plannets have every one their owne course and motions, and that from the West to the East upon other Poles; by the Astronomers called *Zodiack* Poles: Nor is each Plannets course aalike swift and rapid for the Moones course through the *Zodiack* is ended in one moneth. The Sunnes in a yeare and so forth of the rest: So that Saturne finished his but in 30 yeares, Iupiter his in 12. And Mars in lesse and fewer, to wit in 2. Venus, and Mercury whose place is next below the Sunne, in the like space with the Sunne; but by reason of their changing by retrogradation and progression, they are sometimes before the Sunne in the morning, and sometime behinde at evening, and at othertimes so neere him that they cannot bee seene: finally the Moone as remotest from the first Mover or tenth heaven, is swiftest in her owne peculiar morion through the *Zodiack*, which shee endeth (as I was saying)

The Plannets
and their re-
trogradations in
their proper
spheares.

Cause of the
Moones
change.

in 27. dayes and some odde houres. Neither thinke it strange although the change fall not untill the 29. and a litle more; the reason being, that during the time of 27. dayes wherein the Moone goeth thorough the Zodiack, the Sunne in the meane time by his peculiar motion hath gone 27 degrees forward in that same Zodiack; which space the Moone must yet measure before shee can be in Conjunction with the Sunne, which in effect is the change. So they two are to be distinguished, the Periodick motion of the Moone, & her Lunation from change to change.

Different motions of the
Starres.

All these motions of the Starres, our Astronomers have found out by visible demonstrations; as for a peculiar motion allotted to them besides, it is a thing of some further consideration. *Aristotle*, and the Astronomers of that age doe teach, that the eight Spheare, commonly called the Firmament of fixed starres, is the highest and next to the first movable; yet the later Astronomers observing in the fixed starres, beside the daily revolution of 24 houres, another motion from West to East, upon the Poles of the Zodiack, in regard one simple body (such as is the Firmament) cannot have but one motion of it selfe, have concluded, that above the Firmament of fixed starres, there behoved to be a ninth heaven: And last of all the later Astronomers (and chiefly the *Arabs*) observing in the fixed starres a third motion, (called by them *Motus trepidationis*, or trembling motion) from North to South, and from South to North, upon its owne Poles

Poles in the beginning of *Aries* and *Libra*, have hereupon inferred, that there is yet above all these a tenth heaven, which is the first moveable in 24. houres, moving round about from East to West upon the Poles of the World, and in the same space drawing about with it the nine inferiour heavens; and the ninth heaven upon the Poles of the Zodiack, making a slower motion to the East, measureth but one degree in one hundredth yeares, and therefore cannot absolve its course before six and thirty thousand yeares; which space is called the great Platonick yeare, because *Plato* beleaved, that after the end thereof, the heavens should renew all things as they had beene in former times, seeing they returned to their first course; so that then hee should bee teaching those same Schollers in the same Schoole: whereby it seemeth, that this motion was not unknowne in his time. The slownesse of this motion proceeding from the neerenesse to the first moveable, like as the eight Orbe or Firmament finisheth its trembling motion in 7000. yeares; but of this trembling motion as also of the number, motions, and aspects of the Starres, who lists to read *Ioannes Herpinus* his Apologie for *Bodin* against *Ferrerius*, shall rest marvellously contented.

What the
great Platonick
Starre
was.



SECT. 10.

The order of the Elements, with some observations of the Ayre and Water.

NOW betwixt the Spheare of the Moone and the Earth and Waters, is the Element of Ayre, next after the Element of fire, filling up all that vast intecstice, divided in three Regions, whose middle Region by Anteperistasis (as we say) of the supream one ever hot; and the lower ones now hot, now somewhat cold, is ever cold, and so is made the receptacle of all our Meteors, Raine, Haile, Snow, and so forth, framed there accordingly as the matter elevated from the earth and waters is either hot, moist, dry, cold, high or low.

Next to the Element of the Ayre, is the Element of Water and Earth, which two make but one Globe, whose uppermost superficies is breathed upon with the incumbering and environing Ayre.

These two are the center to the Globe and environing heavens; the great Ocean (by *Homer* and *Virgil* called *Pater Oceanus*) which compasseth the earth, and windeth about it; as it is father to all other floods, fountaines, brookes, bayes, lakes, which doe divide themselves through the whole body and upon the face of the Earth, like so many veins

The Waters
and Earth
make but one
Globe. i

veines shedde abroad and disperſed thorough our humane bodies, whoſe ſource and ſpring is from the Liver, ſo hath it divers denominations from the Coaſts it bedeweth, as *Britannick, Atlantick, Aſhiopick, Indick*, and ſo forth.

Now the reaſon why the Seas which are higher than the Earth, doe not overflow it (ſeeing it is a matter fluxible of it ſelfe) cannot bee better given by a Naturaliſt, (ſetting aſide Gods eternall ordinance) than that the waters having their owne bounds from the bordering circumferences, doe alwayes incline and tend thither.

Why the Seas
debarr'd from
overflowing
the Earth.

Præſcriptas metuens tranſcendere metas.

=====

SECT. II.

*Of the Earth, that it is the loweſt of all the Elements;
its diſviſion, firſt into three, then into ſoure parts;
and ſome different opinions concerning them recon-
ciled.*

THe Earth is as the heaviest, ſo the loweſt;
ſubſidit tellus though divers admit not the
waters to bee higher than the earth; of
which opinion *Plato* ſeemes to mee to be, placing
the ſpring of Rivers and Fountaines in orco or ca-
vities of the earth.

The former opinion our famous *Buchanan* ele-
gantly illuſtrateth, in his firſt Booke *de Sphæra*,

K k

Aſpice

*aspice complens e litore concita velis
 Puppis eat, sensim se subducente Curina
 Lameaque ex summo apparent Carthesia malo
 Nec minus e navis terram spectantibus unda
 In medio assurgens, &c.*

Which argueth rather the Earth to be round, not that the Seas or waters are higher than it: so it may be confidently enough said, that the water is above, about, and in the Earth, yea and dispersed thorough it, as the blood is diffused and dispersed thorough the body of man or beast, from its spring the Liver, the *Orcum* (as we may say) of it.

Division of
the Earth.

Of America.

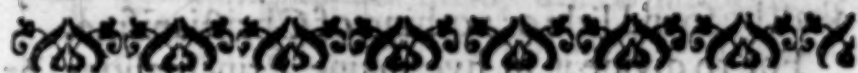
What maketh
all things so
deare now.

This Earth alwayes by the Geographers of old was divided into three parts, *viz. Europe, Asia, Africk*, not knowing any further, but suffereth now a new partition or division; since the dayes of *Columbus*, who in the yeare 1492, by an enterprize (to the eternall memory of his name) made discovery of *America*, added by our moderne Mappes as a fourth part, which (according to our late Navigators and discoverers, shall bee found to exceede the other three in extent; from whence the gold and silver cometh hither as Merchant wares, occasioning all the dearth we have now, considering how things were in value the dayes of our Fathers, as *Bodin*, in his paradoxes against *Malestrot*, averreth; so that the profuse giving of their gold for our trifles, through the abundance of their inexhaustible gold mynes, maketh now, by the abundance of money, which formerly was not; that a thing shall cost ten, yea twenty, which before was had for one or

two.

Mer-

Altercator, that most expert *Cosmographer*, expecteth as yet the fifth part of the Earth, intitling it *Terra Australis*; the *Spaniards* in their *Cardes*, *Terra dell fuego*, which must be by South, that Sea descried by *Magellanes*: So that by his supputation the world shall be divided yet in three, making *Europe*, *Asia*, *Africk* but one, as but one Continent, which in effect it is; *America*, and this looked for *terra Australis*, the other two.



SECT. 12.

Of the different professions of Religion in the severall parts of the world: what Countries and Ilands are contained within Europe, and what within Asia.

BUt leaving those two last parts (as most remote from our commerce and knowledge) of *Europe*, *Africk*, and *Asia*, thus much I finde in *Cosmographers*, that scarce the fourth part of these three is *Christians*, and yet those *Christians* differing amongst themselves; the *Greeke Church* differing in five principall points from the *Roman*; that from the *Protestants*; and the other amongst themselves.

For not to speake of *Europe* where *Christianisme* is gloriously professed, consisting of *Spaine*, *Portugall*, *France*, *Italy*, *Greece*, *Thracia*, *Germany*, *Hungary*, *Rusland*, *Poll*, *Sweden*, *Denmarke*, *Gothland*, of

Kk 2

the

Of our old known world, the third part is not *Christian*, and that as yet different amongst it selfe.

the Ilands lying in the Ocean, as *Brittaine*, *Ireland*,
Island, *Greenland*.

In the *Mediterranean*, as *Cicilie*, *Rhodes*, *Malta*,
Cyprus, *Corfica*, *Sardinia*, *Candia*, *Majorica*, *Minorica*,
and some few others; if we shall but overlooke the
large & plentifull bounds of *Asia*, illustrious in this,
that the History of the Creation and Redemption
of the world was especially accomplished in it,
with the places wherein were the largest Monar-
chies, (so much blazed in Histories) in all this I say
shall be found litle or nothing of Christianisme.

Division of
Asia.

For to divide it in five maine Principalities, or
rather Monarchies (whereof now it consisteth) to
wit, in that of the great Dutchie of *Muscovia* or
Russia, (a good part whereof is in *Europe*) in the
great *Cham* of *Tartary* his Empire, both these two
lying or reaching to the North; In the Empire of
China, whose Lord by them is called the Sove-
raigne of the Earth, the Sonne of heaven: In the
Monarchie of the Sophie of *Persia*, lying in the bo-
some of that part of the world; and in the *Turkish*
Empire, together with the *Indian* Monarchie: To
omit the Emperour of *Germany*.

SECT. 13.



SECT. 13.

With what Religions and Sects all the Easterne and Northerne Countries are possessed, and in what places Christianity is most professed, &c.

WHat in all these (I say) of our Christian Religion but little, and where there is any, it is so mixed with Iudaisme and Paganisme as is a wonder; for in *Iappan*, and thorough all the *East Indies*; howbeit the Iesuites indeede have laboured to draw them to Christianisme, yet their Histories record how and what way they are mixed; And to winde about againe towards *Asthiopia* and *Prester iohn* his estate, reputed Sovereigne and Monarch over forty or fifty Kings and Provinces: There are there also some footesteps of our profession, but as else-where, so intoxicated with Iudaisme, that besides divers other points, they are promiscuously circumcised and baptised: Then to passe by *Egypt*, next neighbour, how it is all enslaved to the *Mahumetans*, all know: In what better case are the *Africans*, the *Numids*, *Maurcs*, *Barbars*; and then in and about the *Atlantick* coast, these of *Fez* and *Marrôco*, and so forth. So it hath pleased God the Maker, to chastise the world for the sinnes of men; in which although light hath cleerely shined, yet they have delighted more in darknesthan in it.

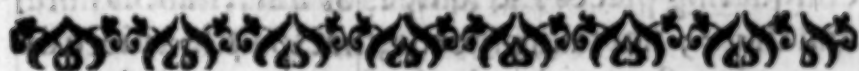
The West
and East
parts.

I will not say but in *Musco*, *Tartary*, *China*, and *Persia* there be some Christians also; but these are commonly *Greekes* by profession, and yet so farre rent asunder and eclipsed from the true doctrine acknowledged by *S. Paul* to the *Corinthians*, *Ephesians*, *Philippians*, and the rest, as is pittifull: divided amongst themselves in divers Sects, as *Nestorians*, *Iacobites*, *Georgians*, *Armenians*, *Copits*, &c. thus dispersed thorough all the Easterne Church; they obtrude unto us of the Westernne too, that we are Schismatics, and severed amongst our selves likewise, as *Papists*, *Anabaptists*, *Lutherans*, *Calvinists*, &c.

Nether are the *Negro* Princes of *Africk*, the *Turkes* and *Mahometans*, and all the other idolatrous people and Nations of the South, so in accord amongst themselves, that they are free from division; for *Leo Afer* in the third Booke of his Historie, quoteth particularly their differences and divisions; for the *Turkes* foure great Doctors and *Mahomete* successors are divided in 72 severall Sects, which are extended and dispersed thorough all the *Turkes* Dominions, in *Europe*, *Africk*, *Asia*; alwayes the rest of the World, as *Terra Australis*, and all *America*, except in such parts where the late Conquests are made by the *Spaniards*, *English*, and *French* are so farre from Christianity, that they dwell all in the profoundest darknes of most grosse Paganisme, serving and adoring the Devill and his excruciating spirits; sacrificing their children, and those of the best sort, either to pacifie their ire, or to conciliate their favour.

SECT.

Turkish professors divided amongst themselves.



SECT. 15.

America and the New-found-lands briefly described; and some opinions about what time of the yeare the world had its beginning.

I Can speake nothing of *Terra Australis* or *In-cognita*; as for *America*, I finde in the Mappe of the new found world, that although it be almost all continent, yet in a manner it is divided in two Ilands, but so that they are made contiguous by nature, by a little Tract of Land or Isthmos, where their principall and Metropolitane Citie standeth, called *Mexico*; a brave Citie indeede, lying in that Bay.

A little description of *America*, and the New-found-lands.

The Peninsule, or Northerly part of this *America* containeth in it *Hispania nova*, the Province of *Mexico*, *Terra florida*, *Terra nova*, *Virginia*, *nova Francia*, *nova Scotia*; further North is not yet discovered: The Southerne Peninsule againe reaching towards *Magellane*; and that part containeth *Pern*, *Brasil*, &c.

This is the whole world as yet knowne, of which *Plinius* in the second Booke *Naturalis Historia*, (which you may be sure was long before the discovery of this *America*) speaketh, when hee raileth against the covetousnesse of Princes, who incroached upon others limits; and mens ambition in

con-

conquering pieces and lumps of inheritances here and there; not taking heede, that so little a piece of ground must containe the best and worthiest Monarchy in the end.

Which world hath neither beene made over againe, and recreated as a thing with time worne and growne old, needeth restauration; of which opinion was *Philo Hebreus* out of *Theophrast*; neither yet was it from all eternity, which *Aristotle* in his 3. cap. lib. 1. de celo giveth way to, saying, that to be created and to be from all beginning, are *adversata*, & *de numero impossibilium*: But, on the contrary, wee have a warrant that it is, and was created, and that consequently it shall have an end, when it shall please the Maker thereof to bring on that period of time; at which, howbeit both Divines and Philosophers have conjectured, yet punctually to say when, the Angels of heaven know it not, much lesse they; uncertaine it is likewise, at what time of the yeare it did begin; although the Rabins, and many Christians following them (as *Bodin* in his Republick, and his Apologetick friend *Herpinus*) accurately maintain, that it began in *September*, which *September* is with them *mensis Nisan*; and I could be induced to that same beliefe: yet more probably the Spring of the yeare may be thought to bee the time when the world began, as the day beginneth with the morning, and as the sunne riseth upon our Horizon with the day. And howsoever the authority of fabulous Poets should not serve to instance a matter of so high an importance, yet *Virgil*

What time
of the yeare
the world
was created.

gill his testimony in his fourth Georgicks, is not wholly to be slighted.

Haud alios prima crescentis origine mundi

Illuxisse dies, aliumve habuisse tenorem

Crediderim: ver illud erat, ver magnus agebat.

Orbis & Hybernis parcebant flatibus Euri.

SECT. 15.

Wherein is to be seene some things concerning the time when it is thought to take an end.

DIvers (you see) have beene the opinions of the Worlds beginning, number, and ending also: some thinking it eternall, others corruptible, and those also differing among themselves.

Cyprian Ludovicus (whom Iohannes Bodin refuteth in his cap. of the changes of States) presumeth the yeare when this dissolution shall bee, may be knowne: howsoever wee should hold us to the written word of God, as to a holy Anchor; in which as we learne that it had a beginning, so must we know that it shall have an end; and rather to be preparing for the approach of it, than curiously and superstitiously to be inquiring when that shall be; seeing it hath not pleased God to make it knowne; for where God in the Scripture hath not a tongue to speake, we should have none to enquire or aske, or an eare to heare: I will relate the

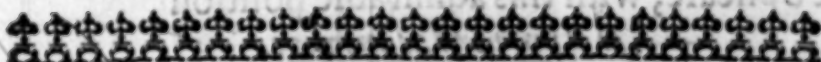
opinions of some in this point, among which, in my opinion, the *Arabs*, *Moors*, and with them the *Jewes*, as particularly *Albumazar* a *Cabalist*, have by all likelihood conjectured best the time of its dissolution, than any before either *Chaldean* or *Egyptian* have done.

When probably it may be thought to take an end.

For, within these few hundred yeares they have discovered the Caball and secret of the trembling motion of the eight Orbe, that it doth not accomplish its course but in seven thousand yeares; which in Analogy and relation is some way answerable to the seventh yeares rest of the Earth, the seventh dayes rest from labour: So that indeede by *Leo Hebreus* his opinion, the world should last but 6000 yeares, & rest the seventh; which opinion is founded upon the *c. helek*, in the *Jewish Sanhedrim*; where it is written, 6000 yeares the world shall last, & then it shall decay: which *Lactantius lib. 7. cap. 14.* illustrateth, comparing the six thousand yeares to the six dayes of the weekes labour, the seventh to the Saboaths rest: our ancient both Poets and Orators have all given after ages to understand, that they all, I say, almost knew generally that its destruction was to come in the appointed time by the Fates. Although as wiser than us their successors did not touch the question, as *Plato* in his *Timoe*; *Cicero* in his Booke *de natura Deorum*; *Macrobius c. 10. de somno Scipionis*: and for them all *Ovid. us lib. 1. Metamorph.*

Esse quoque in satis reminiscitur affore tempus,

*Quo mare, quo tellus, corruptaque regio cæli
Ardeat, & mundi moles operosa laboret.*



SECT. 16.

Copernicus his opinion of the Earths moving, confuted: Archimedes opinion of the world: an Induction to the following Section.

NExt unto this, I subjoyne the franticke and strange opinion of *Copernicus*, who taketh on him to demonstrate, speaking of the worlds frame, that the Sunne is immoveable and placed in the Center of the World, and that the Globe of the Earth is moveable, rolling and wheeling about, admitting the change of States to depend upon the Eccentric of the Earth; so that hee giveth not onely to the said Earth a daily running about the Sunne in 24 houres, in the space of the day and night, but likewise an annuall revolution, which opinion how absurd it is, as Nature convinceth it of error, so authorities of the Learned shall confound it: for besides that, in Scripture we have warra nt, that the Earth is stablished sure —

Copernick his opinion that the Earth did move, rejected.

— *Stat nullo mobilis ævo*

*Terra, super solida nitens fundamina molis
Pollenti stabilita manu.*

Moreover *Archimedes* the rarest Mathematician

L 1 2

cian

tian that erst was or since hath beene, and who caused to be engraven upon his Tombe in *Sicilie* the Spheare, with this admirable position.

— *Datum pondus movere.*

Granted to King *Hieron* of *Siracusa*, that there was no weight which he could not move; And that if there were any other earth beside this whereon he might establish his Machin, and Mathematicall Instruments, he durst undertake to move this out of its place, whereon we dwell; By which he would have us know, that the earth budged nor moved not, much lesse in such celeritie to compasse the Sunne, as *Copernicke* esteemed.

Why the
change of
Triplicities
cannot be
a ground for
change of
States.

Lastly, I am to evert that ground of some too curious Astrologers, who upon the change of *Triplicities*, undertake also to found the change and alteration, which they would prove upon the face of the earth, both in the nature of the ground, and in the qualities of people: But because the Word of Triplicite is not so usuall as that every one understandeth it aright therefore thus much for the intelligibleness of it in the following Section.

SECT.



S E C T. 17.

The division of the starrie firmament, in twelve houres, of the Power and efficacie that is attributed to the Triplicities of them over every Country: and the maintainers of these opinions confuted: the divers dispositions of people of severall nations, how attributed to the naturall disposition of the Planets: An observation of Gods Providence.

THe body of the Starrie firmament which with our eyes we see, by the moderne, at least not very old *Arabs*, and *Moors* (who first found out the trembling motion of it, as they hold called by them *Motus trepidationis*) is divided in twelve houses, which for more cleerenesse, and intelligiblenesse are more compendiously packt up in foure, every one of the foure answerable to a corner of it; as we see in Scripture the foure Winds mentioned; To every one of which foure againe, there are three houses or Asterismes appropriated.

These houses or starres belonging to them are observed to appertain to the Region upon which they glanced first: So that what ever nature either the people or ground there at the first influence or aspect of that house had thereupon, by this trembling motion of theirs, the Triplicities having chan-

The starrie firmament divided in so many Asterismes.

Bodin his tri-
plicity is not
such.

ged about is transported to another Region, which is another thing than the Triplicity set downe, or at the least alleadged so by *Ptolomie* in his booke *Quadripartit*, whereof *Bodin* maketh mention in his fourth *de Republica*: Allotting the Triplicity of fire to *Europe*, of Water to *Africa*; to *Asia* Septentrinall and Orientall Ayre, and the Triplicity of earth to *Asia* meridionall. To say that the fixed starres in these houses of theirs, by the trembling motion of their Orbe; had changed place or seate also, and thereby that they had changed the triplicity or nature of the regions of the earth either in the qualitie of the ground, or nature of the people, were most absurd, and capable to subvert all the Maximes of Iudiciary Astrologie concerning the Horoscopie of men and Cities; which hold as true now as they did this day two thousand yeares, as *Cardan* averreth, who held *Ptolomeus* his Maximes in that point, which he againe had from the *Caldeans* and *Egyptians*, amongst whom there is not a word of these triplicities.

For to say with *Haly Arab*, that *Ptolomie* obscured it amongst his writs, to make it a caball and secret, argueth it selfe of falshood, as being unlikely that he had interred and smothered so rare a secret, or yet made it a caball which otherwayes might have added so much lustre to his workes.

But so it is on the contrary, that notwithstanding all these alleadged changes of triplicities, we see these same proprieties of Cœlestiall signes; which

Cardan

Cardan and *Iulius Maternus* observed by *Caldeans* and *Egyptians* stand good in such sort, that not onely the Elements and Elementary things, Reptiles, Plants, Animalls, with all living and moving creatures of all species and kindes mineralls, &c. keepe that same frame and figure without, and nature within which they had at first ingraft and ingraven, and primitively characterised in and upon them; But also we see the seasons of the yeare, nights and dayes, Sunne, Moone, and Sarres, to observe their constant and equall course which from all beginning was imposed upon them.

The changing of triplicities notable to change the nature of things and Why?

Whereby even now as before, we see the people of the North different from these of the South in nature, Stature complexion, colour, disposition, as at more length I have set downe in my Title of the diversitie of mens humors: And that not onely by authoritie of famous writers who have described them to bee just so then, as now yet wee see them; But likewise conforme to the positure of the very body of the heavens themselves. So that in a manner the nature and seate of the Planners argueth of necessitie the nature of the people to which they shall be found to appertaine.

As *Saturne* to the Meridionall and Southernly people, a dry and Melancholious Starre: *Mars*, to the Septentrionall, as strong and lustier *Iupiter* againe, father of light and life equall to both: *Venus* for the Southerne, as more lascivious than the other: The Moone for us in the North againe as

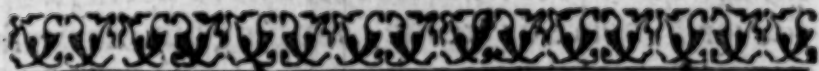
Diversities of peoples natures conformeable to the positure of the heavenly Planets,

more

The naturall
disposition of
the Planets
argueth the
Inclination of
people over
which they are
planted.

more moyst and unconstant than they, while *Mercurie* shall be equall almost for both: But more enclining to the Southerne, as being better spirits; for from them eloquence, and contemplative Sciences doe flow unto us: As from us to them Miriads of lustie great people, which overranne all their fertill provinces: And if it be objected, how it comes to passe seeing *Venus* and lasciviousnesse are attributed to them, that they should bee lesse populous than we; To this I answere, That their women in numbers farre exceed their men. Thus *Polygamie* was and is so frequent amongst them, for if according to their wits they were both strong and numerous, the World could not abide them: Thus the Al-seeing God hath disposed things wisely in this world; that the worst and subtilest creatures are fewest in number, as Lyons, Foxes, Wolves, Leopards, whereas the weaker and more Innocuous sort are more frequent, as Sheepe, Beeves, Hart, Hinde, and so forth.

SECT.



SECT. 18.

The causes of the Changes of severall things as of men, Countries; plots of ground, &c. and that these proceede not from triplicities as Astrologers would have it.

NOW ifso be that some of the people have changed any whit of their former innated Natures, That must not be imputed so much to the change of Triplicities as to education, and the commerce of other more politicke Nations, which is more frequent than before; formerly it being counted a rare thing for a man to make a voyage to *Spaine* or *Portugall*, whereas now new found worlds and people of other countenances, are nothing so strange and wonderfull unto us.

Finally, that some Countries, or rather Grounds, are become more barren than they were, that men are more weake, and lower of stature than they were; must not bee imputed to their triplicities, but rather it argueth the wrath of God upon the earth for the Sinnes of Mortalls, the inhabitants thereof, and in like manner, the decaying age of the World, as in plentifulnesse, so in vertue: for if the Luxurious plentie of *Sicily*, *Asia* the lesser, of *Egypt* on the other side againe; and *Barbarie*; if by these triplicities they are changed, I pray you, where is it:

M m

for

If people be changed from that which they were wont to be, Why? and How?

If some Countries be barren, others plentifull, Why, and How?

for my owne part wheresoever I have beene, whatsoever I heare or reade, nothing but universall complaints of the Earths waxing worse and worse: I end this with that of *Plinius* in his Naturall History, complaining upon the badnesse of the times in his dayes to that they were before.

*Gaudebat terra triumphali aratore
& laureato vomere subigi.*

This was when the Emperours themselves tooke pleasure in Agriculture, leaving their Scepters, to betake themselves to the Plough.



S E C T. 19.

How ancient Writers have compared Man and all his parts to the World and all its parts; wherein is recounted the different dispositions of men of different Countries; and to what Countries the faculties of the soule are attributed.

AS these above-cited Writers and many others have gone about with most apparent reasons to attribute the temperament of severall Countries, and the severall dispositions and complexions of men in those Countries, to the site and disposition of the Planets that governe over such and such places and men; so they instance many inducing examples for the prooffe of it.

One of them in comparing the great World to the
little

little world [Man,] willeth us to imagine a Man, walking or laid, according to the naturall motion of the superiour bodies, from East to West; and wee shall evidently perceive, that his right Arme, (wherein his greatest strength and vigour is) and his right Side, (where the Liver and Gall are placed) are towards the North; and the left hand and side (which is called the feminine part) towards the South; whereupon it is inferred, that according to this and the posture of the celestially Bodies, the place and people of the world, that the right side beholdeth, which are the Northerne (wherein the Easterne are comprehended) are strong and lusty, where the people of the opposite part of the world, are more weake and lase.

Man compared to the World.

The one faire and lovely, the other brownish, swarthy and hard favoured; the one cold and moyst, the other hot and dry; the one given to labour and travell, the other to study and contemplation; the one joviall and merry, the other melancholick and grave; the one simple and no wayes malicious, the other crafty and deceitfull; the one inconstant, the other pertinacious, never swarving from his intended resolutions; the one prodigall, the other parcimonious and sparing; the one affable and facill, the other arrogant and stayed; the one mercifull, the other cruell and revengefull; the one chaste and bashfull, the other venereous and affronted; the one impatient, the other long suffering; the one in Counsell rash and sudden the other more constant & deliberate, with severall o-

Qualities of the Northern and Easterne people.

The three faculties of the Soule.

ther the like qualities, wherein the one halfe of the world North and East, doe differ from the other, South and West: All which they doe back with many forcible Reasons, in so farre, that there is not any part in the Microcosme Man, to which they doe not assimilate some part of the great World: yea the three principall faculties of the soule, Imagination, Reason, and Vnderstanding are attributed to three parts of the World.

Imagination, which is proper for meditations of divine and sublime Sciences, which consist not in demonstration and Reason, but on a naked and simple belife, is appropriated to the *Meridionales* or Southerne people, who of all others are most carried away with superstitions.

The second Reason, to the Mid-people, participating of both extreames, betwixt the religionary Southerne, and the laborious, industrious, and warlike Northerne.

The third, which is Vnderstanding, to the Northerne, who have more strong and robustuous bodies, fitter for labour and handy-workes than the other two.

Conclusion.

So, (as succinctly as I could) I have given you a relish, what the most learned have both written and thought of the world, and its parts till a fitter time, wherein (God willing) you shall receive a more ample content in this and other things.

A.



A GENERALL
INTRODVCTION
AND
INCITEMENT

To the studie of the
METAPHYSICKS:

Wherein the most excellent ends
and uses thereof are illustrated, and how neces-
sary it is to be understood by Christians.

SECT. I.

*Of the severall titles and appellations that have beene
given by Heathnick and Christian Philosophers to
Metaphysick; the reasons wherefore every of those
names were attributed unto it; and finally whereof it
principally treateth.*



He high and sublime Science, which we
call Metaphysick, hath divers titles and
styles attributed unto it, partly by A-
ristotle himselfe, and partly by other
Authors, as is observed by Suarez in the beginning

Metaphysick
first called Sa-
pientia.

of his first Metaphysicall Disputation, and by *Fonseca* in his *proæmium*, prefixed to his Commentaries upon *Aristotles* Metaphysicks cap. 8.

For first, this Science is called *Sapientia* 1. *Metaph. c. 1. & 2.* because it disputeth of highest and most hard matters, and of the first and most generall causes of things.

2 *Philosophia*
καὶ ἐξοχὴ.

Secondly it is called *Philosophia καὶ ἐξοχὴ*, or by way of excellencie, 4 *Metaph. cap. 2.* because it exceedeth all other parts of Philosophy in dignity very farre, and as a Queene it hath Sovereignty, and royall prerogatives above them all, prescribing unto every particular Science the bounds and limits of it, confirming or establishing the principles of them all.

3 *Prima Phi-*
losophia.

Thirdly, it is called *prima Philosophia*, 6. *Metaph. cap. 1. & lib. 2. cap. 6.* because it treateth of most excellent matters, as of God and of the Angels, in so farre as they may be knowne, by the light of Nature: for as they are knowne to us by divine revelation, the consideration of them belongeth to Divinity.

4 *Philosophia*
Theologica.

In the same respect it is called *Philosophia Theologica*, 6 *Metaph. cap. 1.* and *Scientia Theologica*, 2 *Metaph. cap. 6.* and by Christian Philosophers, who know another Theologie above, for distinctions cause, it is called *Naturalis Theologia*.

5 *Metaphysica*
and why.

Last of all, it is called *Metaphysica*, which word occurreth not in *Aristotle* himselfe, but is used by his Interpreters and followers; yet it is grounded upon the titles of *Aristotles* Bookes of Metaphysicks,

sicks, which after by *Aristotle* himselfe, or by *Theophrastus*, who is thought to have collected *Aristotles* Workes, and to have digested them in order, are intituled τὰ μετὰ τὰ φυσικά, *id est, post naturalia aut transnaturalia*, and that, either because this Science was invented after Naturall Philosophy, for the knowledge of the natures of bodily substances, (which is called *Physiology*) or else because the things considered in it, are beyond and above the order or ranke of naturall things; that is, of grosse and bodily substances; for it doth treat of spirituall and invisible substances, *viz.* of God and of the Angels; as also it treateth of the attributes and notions or conceptions of entity or being, which are common to all things, which have a reall being, whether they be bodily substances, or spirituall, yea whether they be substances or accidents.

Whereof it
treateth.



S E C T. 2.

The Reasons why Aristotle added Metaphysick to the other parts of Philosophie; and how it is distinguished from the other Sciences.

A *Aristotle*, who is thought to be the first author of this sublime and almost divine Science, added it to the rest of the parts of Philosophy, chiefly for two causes, as *Fonseca* well observeth in the 6. chapter of the Preface to his Commentaries

Two causes
why Meta-
physick is ad-
ded to the o-
ther Sciences.

The first.

mentaries upon the Metaphysicks.

First, because in the Physicks these substances are considered, which are composed of bodily matter and forme; and in the Mathematicks, they are said to be *accidentia abstracta à materia secundum rationem*; yet truly and really in their being or existence they have a necessary dependencie from bodily matter, and therefore are called *Accidentia materialia*, because they have their being in, and from grosse and bodily substances. Now besides these, there are some things meerely immateriall, that is, neither composed of bodily matter and forme, nor yet any way depending from bodily matter, (which therefore are in the Schooles said to be *abstracta à materia & secundum rem & secundum rationem*) as God, the Angels, spirituall accidents & cat. And therefore, as materiall substances are considered in the Physicks, and materiall accidents in the Mathematicks; so it was requisite, that there should be a third kinde of Science, to wit, the Metaphysicks, for the consideration and handling of things meerely immateriall, and independing from bodily matter.

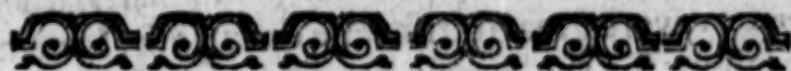
The second
cause,

Secondly, there are some generall degrees and conceptions of entity or being, as also some attributes, properties, principles, and some divisions or distinctions, which are common to all things, whether they be bodily and materiall, or spirituall and immateriall, as *ens, essentia, existentia, unitas, veritas, bonitas*, and the divisions of *ens*, in *completum, & incompletum, finitum & infinitum, necessarium*

rium & contingens, permanens & successivum, absolutum & respectivum, principium & principiatum, causam & effectum, subjectum & adjunctum, signum & signatum, mensuram & mensuratum, actum & potentiam, &c.

Now these things are transcending, and doe exceed the limits of particular and inferiour Sciences, as Physick, Geometry, Arithmetick, and the Sciences which are subalternate and subordinate to them; wherefore they cannot be handled in them, but for the handling of them there must bee some generall and transcendent Science, whose speculation is not limited to any particular *species entis*, but comprehendeth and taketh in all things under the capacity and amplitude of the object of it. And this is Metaphysick, of which we are now speaking.

Metaphysick
excelleth o-
ther Sciences.



SECT. 3.

Three Reasons conducing to the praise of Metaphysick, inducing all men to the study of it; and setting downe some principall ends and uses thereof.

BY this, every man may cleerely see the necessity of this Science for the perfection of Philosophy. But it may be, that some will thinke, the consideration of these immateriall or spirituall things, of which I did speake in my first reason, as also these attributes, properties, and distinctions

N n

which

A supposition
resolved.

which are common to things materiall and immateriall, and of which I did speake in my second reason, some, I say, will thinke the consideration of them not to bee necessary, but to be more curious than profitable. But I perswade my selfe, no wise or judicious man will thinke so.

First Reason.

For first, without the knowledge of these generall and transcendent Metaphysicall termes and notions or conceptions no solide knowledge can be had, for the subjects which are handled in inferiour Sciences.

Second Reason.

Secondly, seeing man in respect of the constitution of his nature, is participant, both of things bodily and materiall, as also of things immateriall and spirituall, (for which cause by *Philo Iudens* in his Booke *de opificio mundi*, he is called *nexus Dei & mundi*, and *rerum materialium & immaterialium hor. xon*) were great sottishnesse or stupidity in man, to labour for the knowledge of materiall and bodily things, with which he symbolizeth in respect of his baser part, that is his body, and not to care for knowledge of spirituall and immateriall things, to which he is like, and as it were of kinne in respect of his better part, to wit, his soule.

Third Reason.

Thirdly, seeing the happinesse of man, I meane his contemplative or speculative happinesse, standeth in the knowledge and contemplation of these things, which are most excellent and most sublime, he would come very farre short, of that happinesse, if he were ignorant of these things, which are handled in the Metaphysicks: for they are spirituall
and

and immateriall, and consequently are most excellent, and also most sublime and difficult, in respect they doe farre exceede the reach of all sense and sensitive knowledge.



SECT. 4.

The excellencie and dignity of the knowledge of Metaphysick; that onely free and sublime mindes, not distracted with worldly cares are fit for this studie; and the Reasons wherefore.

I Have spoken already of the divers names and titles of this Science, of the reasons wherefore it was invented, as also of the necessity of it: Now in the last roome I will speake something of the excellencie and dignity of it. *Aristotle* in the 1. Booke of his *Metaphysicks* 2 chapt. saith, two things which serve very much for manifesting or declaring the excellencie of this Science, first hee saith, that it is a Science more fit and suitable for God than for men; or to give you it in his owne words, that *eius possessio non existimari debet humana*, that is, that man is not sufficiently worthy to possesse or enjoy this Science, and that because this Science, of all Sciences, is most free; yea it onely is free from all subjection to other Sciences, and from all reference to any higher or more eminent knowledge: for all naturall knowledge can equall,

N n 2

and

That Metaphysick is free from all subjection to other Sciences.

Reason.

Why the Science of Metaphysick is most honourable.

and much lesse exceede the sublimity of Metaphysicall speculation; and therefore this Science requireth a minde free and sublime, that is, a minde not depressed with base cogitations, nor distracted with worldly cares, as ordinarily the mindes of men are, in respect of the manifold wants and necessities into which they are subject in this life. Seeing then God only is free from such distracting and depressing cares, therefore in *Aristotles* judgement, this Science is more suitable for him than for men. Secondly hee saith, that this Science is amongst all Sciences the most honourable, because it is most divine: And that it is most divine, hee proveth by two very forcible reasons, first because this Science *versatur in rebus divinis*, it contemplateth divine and heavenly things: and this hee proveth, because it considereth God himselfe as he is the first *principium*, and the supream cause of all things. Secondly, because *Hae Scientia maxime à Deo habetur*, the perfect and exact knowledge of this Science most truely and properly is attributed to God: for this Science in a manner, vieweth and considereth all things, it hath an especiall eye to spirituall and invisible substances, and amongst these it especially and chiefly contemplateth God himselfe, as the highest degree of entity, and the supream cause of all things.

Now to take a full view of all the rankes, orders, and degrees of things to have a positive and distinct knowledge of that invisible world, the world of Angels, and above all, to have a perfect and comprehensive

prehensive knowledge of that boundlesse Ocean of being and goodnesse which is in God, it requirerh not a finite ingine or understanding, but an infinite capacity and an unspeakable sharpenesse of wit.

SECT. 5.

For three respects the Metaphysick is called the most excellent Science, and the most necessary to be understood by Christians.

BY these things which are said by *Aristotle* in that chapter, and in other parts of his workes, for the commendation of this Science, wee may see this Science to be most excellent in three respects.

First, because of the universality and amplitude of the object or subject of it; for in the Spheare or circuite of it, all rankes, orders, and degrees of things are comprehended, so that looke how farre the knowledge of the whole celestiaall Globe exceedeth the knowledge of one constellation, and the knowledge of the universall Mappe or table of the whole Earth exceedeth in dignity the knowledge of the Mappe of one Province or Countrey, as farre doth Metaphysick (which is as it were one universall Carde or Mappe, presenting to our view all rankes, orders, and degrees of being) exceede

Comparison.

in dignity these particular delineations and descriptions of things, which are set downe in inferiour Sciences.



SECT. 6.

The first respect, for the universality.

Christian
Philosophers.

Aristotle.

SEcondly, because of the dignity of the subject of it; for, not onely is this Science exercised about the speculation of the highest and most generall causes, principles, and attributes of things, but also it descendeth into a speciall consideration of the most noble and excellent things of the world, that is, of God and of his Angels: for, not onely doe Christian Philosophers now in the Metaphysicks dispute of them, but also *Aristotle* himselfe in his Metaphysicks, especially in his 12 Booke, doth most excellently discourse of them. And truely it is more than marvellous, that an Heathnick or Pagan-philosopher should, by the light of Nature, have penetrated so farre into the knowledge of God. For to passe by that which he writeth in the 10. chapter of that Booke *De unitate Dei*, proving and demonstrating, *unum esse principium & gubernatorem universi*; and concluding his discourse with that saying of the Poet:

ἓν ἀγαθόν πανταρχὸν εἰς πάντα ἔστω.

To

To omit, I say, this discourse of his *De unitate primi motoris*, or (as he calleth God in that Booke) *primi moventis immobilis*, in the 7 chapter of that Booke, he sheweth, that God is *primum intelligibile & primum appetibile*; that is, he is *ens omnium aptissimum & dignissimum quod intelligatur & appetatur*, as *Fonseca*, commenting upon that place, doth expound it: that he *necessario existit, & cetera omnia ab eo pendent*: that *perfectissimam & beatissimam vitam degit*; that *eius beatitudo est perpetua, & sine intermissione aut alteratione*; that *Dei beatitudo ex sui contemplatione nascitur*; that *eius contemplatio est in hoc & a seorsum, iucundissimum quid & optimum*; that not onely *vivit vitam beatissimam*, but hee is *ipsa vita beata*; or as he speakes himselfe, *vita sempiterna & optima*.

Truely this Pagan Philosopher hath found a wonderfull joy and delight in this his speculation of the essence and happinesse of God, (as *Suarez* noteth writing upon this place, in his *Index locupletissimus in Phisicam, lib. 12. cap. 7.*) yea he seemeth to have beene ravished with the sweetnesse of this heavenly contemplation. It is no wonder, that *David* in the 104 Psalme vers. 34. said, *My meditation of him (that is of God) shall be sweete, and I will bee gladin the Lord*. For if *Aristotle* found such sweetnesse in the contemplation of God, as hee is *Pater mundus*, or *Pater entium*; what sweetnesse, yea what heavenly, what ravishing joy may a man living within the Church have in the contemplation of God, as he is *Pater Ecclesie*, and *Pater misericordiarum*? 2 Cor. 1. 3.



SECT. 7.

The second Respect, for the dignity. That the consideration of the soule of man belongeth to the Metaphysicks, with severall Reasons for the prooffe thereof.

THere are some who thinke, that not onely the contemplation of God, and of the Angels doe belong unto the Metaphysicks, but also the contemplation *De anima humana seu rationali*; and that, because it is a spirituall or immateriall substance. *Suarez* in the first Tome of his Metaphysicks, Disput. 1. Sect. 2. Parag. 18. most justly condemneth this opinion; and that 1. because *consideratio totius, & consideratio partium ejus ad unam & eandem scientiam pertinet.*

That the consideration of mans soule, and not himselfe belongeth to Metaphysick.

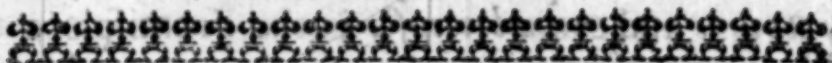
Now the consideration of man himselfe belongeth not to Metaphysick, but to Physick; and therefore the consideration of the soule of man, which is a part of man, belongeth also to Physick or naturall Philosophy. 2. Albeit the soule of man be an immateriall substance in it selfe, and although in the reall beeing of it, it hath not a necessary dependence from bodily matter, yet God hath appointed, that the ordinary and naturall existence or beeing of it, as also the operation of it, should be *in materia corporea.*

It

It is farre more probable, that which is affirmed by *Ruvius* and *Conimbricenses* in the Frontispiece of their Treatises *de anima separata à corpore*, and in their first *questio proæmialis*, before their disputes *de anima*, that the consideration of the being and operation of the soule *in statu separationis à corpore*, after death untill the day of the generall resurrection, doth belong not to Physick, but in some respects to Theologie, and in other respects to Metaphysick.

Ruvius his
opinion.

For the handling of these questions, [*An status separationis à corpore, sit anima rationali naturalis; an anima à corpore separata habeat naturalem appetitum redeundi ad corpus; an anima separata specie ab Angelis differat, & quas facultates seu potentias, quas species intelligibiles, quos habitus, & quem modum cognoscendi habeat anima separata à corpore:*] the handling, I say, of these questions doth belong properly to Metaphysick; neverthelesse these same Authors, whom I have now cited, as also *Suarez* in the place already spoken of, affirme, that the *Treatatus de anima separata*, may most commodiously be added to the Bookes *de anima*, not as a proper part of the Science *de anima*, but as an Appendix to it.



S E C T. 8.

The third Respect, for the Usefulness. Of the great use Metaphysick is towards the furthering of all Divines, in Controversies, and other things: A Conclusion.

THirdly and lastly, this Science exceedeth all the rest in dignity, in respect of the great use it hath in all other Sciences and Arts, especially in Theology it selfe; I neede not to insist in the confirmation of this: for it is very well known, that by the grounds of Metaphysick, wee may demonstrate against Atheists, that there is a God; against Pagans, that this God is one; against *Cerdon*, *Marcion*, and the *Manichæan* Hereticks, that there are not *duo principia*, but *unum summum & primum principium*; against the Stoickes, that there is not such a fatall necessity in all events as they dreamed of, against that damnable and detestable Heretick *Conradus Vorstius* that *Deus est infinitus, immensus, indivisibilis, simplex, totus in qualibet re in qua est, æternus, & quoad substantiam suam, & quoad ejus decreta immutabilis, & omnium accidentium expers*; for that wretched and madde Doctor denied all these things. In many other Questions and Controversies, which the Church hath against Hereticks ancient and moderne, there is great use of Metaphysick.

But

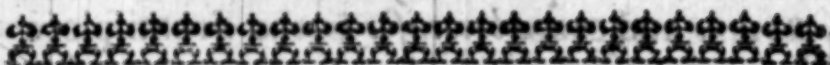
The benefit
of the know-
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Metaphy-
sick.

Controversies.

But I feare to weary the Reader with these Generalls, For I intend hereafter (God willing) to put forth a small Treatise of Metaphysicks, where in you shall finde that noble Science more perspicuously delineated.

FINIS.





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